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Motoring Magazine

Published Monthly by the Proprietor Frederick Marriott, at the Office 21 Sutter Street, San Francisco, California
DEVOTED TO THE MOTORING INTERESTS OF THE PACIFIC COAST

Price 10 Cents | San Francisco, Cal., January, 1915 | $1.00 Per Year

WESTERN STATES LIFE INSURANCE CO.

SAN FRANCISCO. CALIFORNIA

CONTINUES TO GROW IN STRENGTH AND PROSPERITY

WARREN R. PORTER
President

Fully Paid Cash Capital
$1,000,000.00

Report of Transactions During the year 1914

THIS Company announces that it wrote during the year 1914

2563 POLICIES

representing

$5,158,725.00

of insurance, ***on which the first premiums have been paid to the company in cash.*** The Company now has

6867 POLICIES

in force, representing

$14,462,471.00

of ***paid for insurance*** being a ***gain*** for the year of

$2,397,943.00

THE Company now has admitted assets of

$1,802,500.84

which represents a ***gain*** during 1914 in Admitted Assets of

$196,688.73

The total Premium Income in 1914 was

$538,191.34

This shows a ***gain*** over 1913 of

$73,000.90

During 1914 the Company's earned interest income from invested Assets increased to

$93,159.18

The Steady, Substantial Growth of the Company Since Organization is Clearly Shown by the Following Record:

Dec. 31st	Admitted Assets	Net Interest Earned	Policies in Force	Paid-for Insurance in Force	Premium Income
*1910	$1,372,063.41	$19,906.11	168	$1,551,850.00	$42,935.85
1911	1,385,825.62	55,208.41	1884	5,140,775.00	200,098.74
1912	1,461,792.41	75,148.56	3997	9,384,550.00	362,604.61
1913	1,605,812.11	82,226.35	5486	12,064,528.00	465,190.44
1914	**1,802,500.84**	**93,159.18**	**6867**	**14,462,471.00**	**538,191.34**

**First Policy issued July 14, 1910*

The Company's Total Net Income During 1914 Was Over Six Hundred and Seventy-two Thousand Dollars
This represents a gain in total income over the previous year of over
ONE HUNDRED AND TWO THOUSAND DOLLARS

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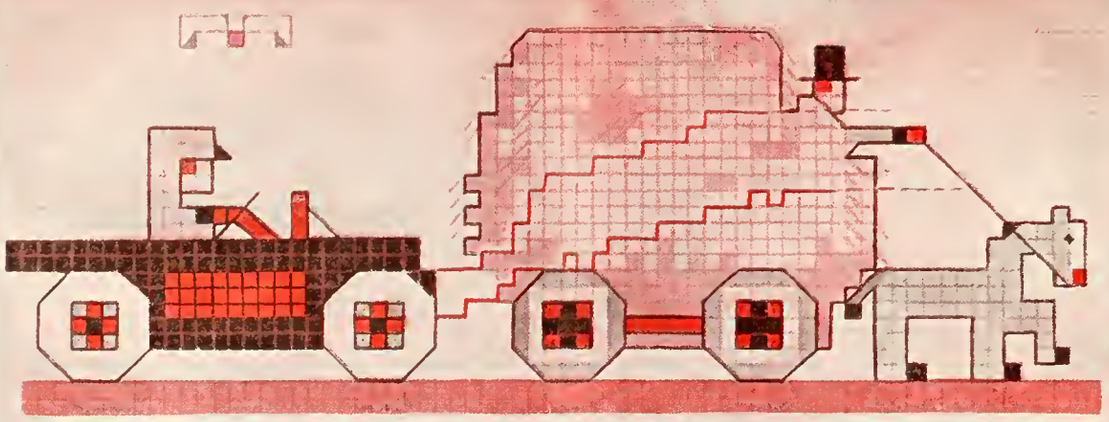
H. J. SAUNDERS
Vice-President and Manager of Agencies

Home Office, Wells Fargo & Co. Bldg. *San Francisco, California*



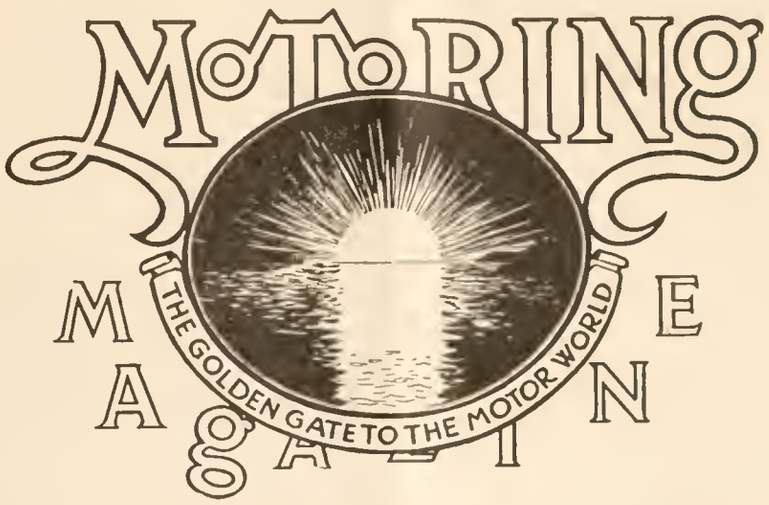
HAY WAGON IN FRONT

SOUND

KLAXON

THEN

GO AHEAD.



San Francisco will be the Mecca of the motorists the coming year. Never before in the history of the State will so many motor car enthusiasts visit its hills, mountains and happy valleys.

For the vanguard of the big army of gasoline consumers, who are here, "Motoring Magazine" this month begins a series of articles with maps showing the many wonderful spots that can be enjoyed with the automobile.

For those who are not lucky enough to be away among the wild flowers which are now just commencing to appear in the field, there is reading that will make mental tours possible.

For the owner there is a department that tells of little things that will avoid trouble.

And as a last thought there is a wish for a Happy New Year and that Dame Fortune may turn her horn-of-plenty in your direction.

CONTENTS

JANUARY, 1915

	Page
Editorial	1
Through Beckwith Pass	3
Seattle Auto Club Prepares for Visitors	5
Route from Los Angeles to San Diego Fair	6
A Visit to Old Fort Ross	7
Proposed Scenic Road	8
Plant Pay Trees on Highway	10
Yuma-Los Angeles Branch Ocean-to-Ocean Highway	11
Joplin to California Over Arizona Desert	12
Forty Miles of Boulevard to Los Angeles	13
Save the Shade Trees Along Our State Highway	14
Beaumont and Banning Road Work Begins	16
High Up in the San Bernardino Mountains	17
Wonderful Drive Through the South	18
Interesting Items Gathered from the Four Winds	20
Of Interest to the Motorist who Owns a Car	21
Good Roads Gossip	24

Vol. VIII JANUARY, 1915 No. 1

MOTORING MAGAZING

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at the Office 21 Sutter Street, San Francisco, California

DEVOTED TO THE MOTORING INTERESTS OF THE PACIFIC COAST

Knight Landing

Through Beckwith Pass

Wonderful Scenic Drive Through the Feather River Country

California is so big, so varied in its geographical and topographical features that the motorist may travel for weeks and always encounter fresh scenes and a new variety of mountain, sea or valley scenery to refresh his mind and eye.

With such an amazing length and breadth of country to select from when, in planning his tour, it is small wonder that the motorist unfamiliar with our splendid State, should be somewhat at sea as to just where to go.

With the Yosemite Valley, Lake Tahoe, the Big Trees and the wonderful scenic High Sierras calling for a visit, it is indeed a problem to select a tour that will truly represent the best the State can offer from a scenic standpoint.

One of the most wonderful sections of the State is that known as the Feather River Canyon country, the district that borders on the western slopes of the Sierra Nevada Mountains, in Northern California, possesses the eternal beauty of those pine covered, snow clad hills. This country has become of late the Mecca for the traveler in search of health and recreation.

With the idea of seeing for themselves the wonderful scenery of the Feather River country a party consisting of K. W. Barkman, Burleigh Davison, C. S. Nordell and Tom Prior recently made a tour through this interesting section and received a splendid impression of the beauty of that country.

Going by way of Stockton, Sacramento and Marysville to Oroville, made the latter city their base of operations for the run into the Feather River country. It was with much regret that the party learned from Secretary Ward of the Chamber of Commerce that the Feather River Canyon road was closed. Those who have passed through this canyon either by train or foot, claim that this route is one of the most beautiful in the State. Following the windings of the Feather River, the traveler witnesses vista after vista of wonderful mountain and canyon country. Waterfalls, rapids,

Summit of Lava Mountain

deep fishing pools and wooded canyon form an ever changing and enchanting picture for the delectation of those who pass through.

Finding that they could not get through Quincy, the county seat of Plumas, by the Feather River Canyon, the party drove over the alternate route which goes by Bidwell's Bar, at present a deserted pile of ruins, but once the county seat of the combined counties of Butte, Plumas and Lassen, and a roaring mining camp of several thousand people. From Bidwell's Bar, the road leads through the wooded grades to Berry Creek, on to Buck's Ranch, and thence to Quincy.

After staying all night in Quincy, one of the prettiest and quaintest towns in the States, the party left the next morning for Reno via the Beckwith Pass. The road from Quincy to Beckwith is through the Forest Reserve of the wooded Sierra Nevada Mountains, and presents an endless series of beautiful scenes to reward the traveler for his labors.

A stop was made for lunch at the town of Beckwith, after which the road leading to the pass was taken. Warned that the pass was of such gradual ascent and low altitude that it was hardly noticeable to people going over, the party of motorists was on the lookout to note the moment they went over the summit, but in spite of this fact, the party drove clear through the Beckwith Pass without knowing it, and it was not until they were descending on the other side that they realized they had passed through.

From here on, the road to Reno is through the sage brush country of Northwestern Nevada, and is one of the objectionable features of this route as against the other Sierra passes. Arriving in Reno the party stayed that night in the lively Nevada metropolis, the next morning taking the Lincoln Highway back to Oakland, via Auburn and Sacramento.

The return trip through the Sierra Nevada from Reno was one of exceptional interest, and the party was never for a moment allowed to become tired or disinterested, for the sublime unfolding of the magnificent mountain scenery was such that every one's attention was held.

Arriving in Sacramento the second night out, the party stayed there, and the next day took an easy run into Oakland via the Davisville, Suisun, Benicia road.

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EVERYBODY, SING.

My auto, 'tis of thee,
Short cut to poverty—
  Of thee I chant.
I blew a pile of dough
For thee two years ago,
And now you quite refuse to go,
  Or won't, or can't.

Through town and countryside,
You were my joy and pride;
  Ah, happy day.
I loved thy gaudy hue,
Thy nice white tires so new,
But now you're down and out for true,
  In every way.

To thee, old rattlebox,
Came many bumps and knocks;
  For thee I grieve.
Frayed are thy seats and worn,
Badly thy top is torn,
The whooping cough affects thy horn,
  I do believe.

Thy perfume swells the breeze,
While good folks choke and wheeze,
  As we pass by.
I paid for thee a price
'Twould buy a mansion twice,
Now everybody's yelling "Ice"—
  I wonder why?

Thy motor has the grippe,
Thy spark plug has the pip;
  And woe is thine.
I, too, have suffered chills,
Ague and kindred ills,
Endeavoring to pay my bills
  Since thou wert mine.

Gone is my bank role now,
No more 'twould choke the cow,
  As once before.
Yet if I had the yen,
So help me John—amen,
I'd buy myself a car again,
  And speed some more.

Mal Rose in Woman's National Weekly.

Coming down Beckwith Pass.

Seattle Auto Club Prepares for Visitors

Marking the launching of an aggressive campaign to keep its 600 members constantly informed about road conditions and traffic regulations and to further promote motor touring, the Automobile Club of Seattle recently issued the first of a series of bulletins. The bulletins will be issued by the club under the direction of President Joseph Blethen and the following members of the board of trustees: R. L. Sparker, Frank M. Fretwell, W. A. Avery, C. L. Morris, N. B. Abrams and John W. Roberts.

Members of the club are urged in the bulletin to prepare a log of every trip they take and send it to the secretary, 504 Northern Bank Building, that they may be printed and sent to all the club members. Logs of trips over new roads are especially wanted, journeys that can be made with pleasure and comfort; not endurance or speed contests.

The bulletin deals with the new regulations governing headlights on automobiles. Commenting on this subject, the club publication says:

"Chief Lang prescribes a very simple remedy by which the strong headlights may be made acceptable to the police, and yet not cut down the quantity of light which the driver needs. Take soap or brass polish and cloud the top of the inside of the glass front of your headlights. With one sort of reflector this will throw all of your light in front of the car for a goodly distance and yet will shade the globe or burner from the eyes of the pedestrians and of the drivers of the cars coming in the opposite direction. It may be that your lens is such shape that you will have to cloud the bottom half. Try it out for yourself. When you have found which half of your glass is to be clouded, you can make out of plain white paper or of celluloid a shield to place on the inside of the glass, which you can readily remove when you are going to take a country run.

"Also, Chief Lang says that kerosene side lights which are carried on many cars for protection when standing at the curb will not be molested.

"This ordinance properly administered by the police department and properly respected by automobilists will result in the simplifying of what is at present an unsatisfactory situation.

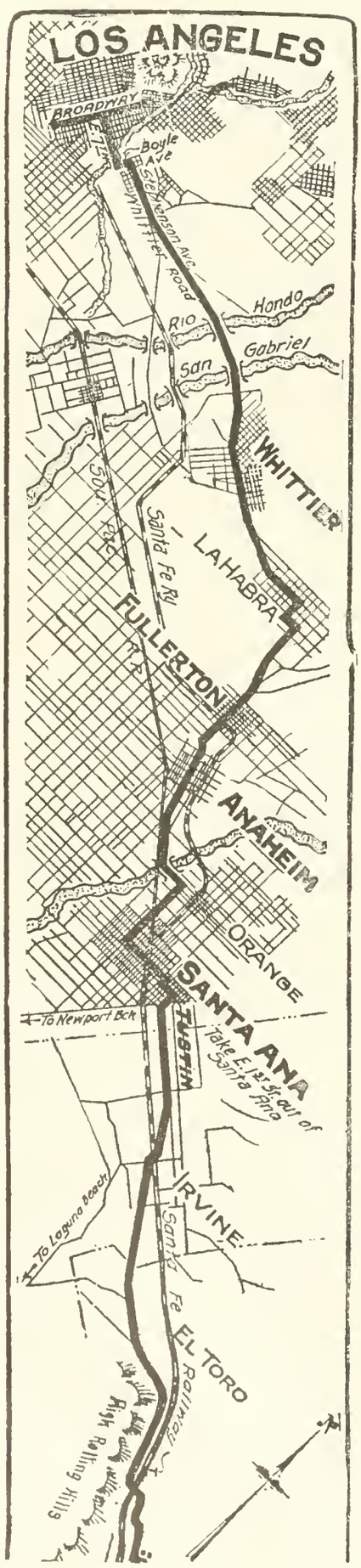
"Members are urged to meet the police half way in traffic regulations. Chief Louis M. Lang has ordered his officers to meet you there, and if necessary to fudge over a foot or two. This club ought to make the motor vehicle situation more comfortable, rather than to complicate it. President Blethen is ready to go to the front of your grievances; but he proposes to help Chief Lang regulate the buzz wagons, and he wants the club to aid him."

The Automobile Club of Seattle has been in existence for eight years, during which time it has accomplished much good in the direction of improving traveling conditions, fostering touring, placing sign posts on country highways and bringing about the enactment of fair legislation.

The club now has more than 600 members, which is a small proportion of the motor car owning population of Seattle, and an active campaign is to be made for new members. The dues are only $12 a year, and in view of the great amount of good work that the club is accomplishing for motorists, it is entitled to the hearty support of all the automobilists in the city.

Route From Los Angeles to San Diego Fair

Leaving Los Angeles, the best route is via East Seventh street to Boyle avenue, thence one block to the left to Stephenson avenue, which follow easterly through Montebello to Whittier, La Habra and Fullerton. At Fullerton the State Highway is followed south through Anaheim to Santa Ana. There the concrete boulevard ends, and the ordinary dirt road must be followed through Capistrano and along the coast to Las Flores, a distance of approximately thirty-five miles.



From Las Flores through Oceanside, the State Highway will be found in splendid condition, along the surf, often on the bluffs and again on the beach, making a drive of unusual scenic beauty, as far as the foot of the Torrey Pine grade. This grade is within the city limits of San Diego, and is being reconstructed as a macadamized highway and for the present is closed to all traffic.

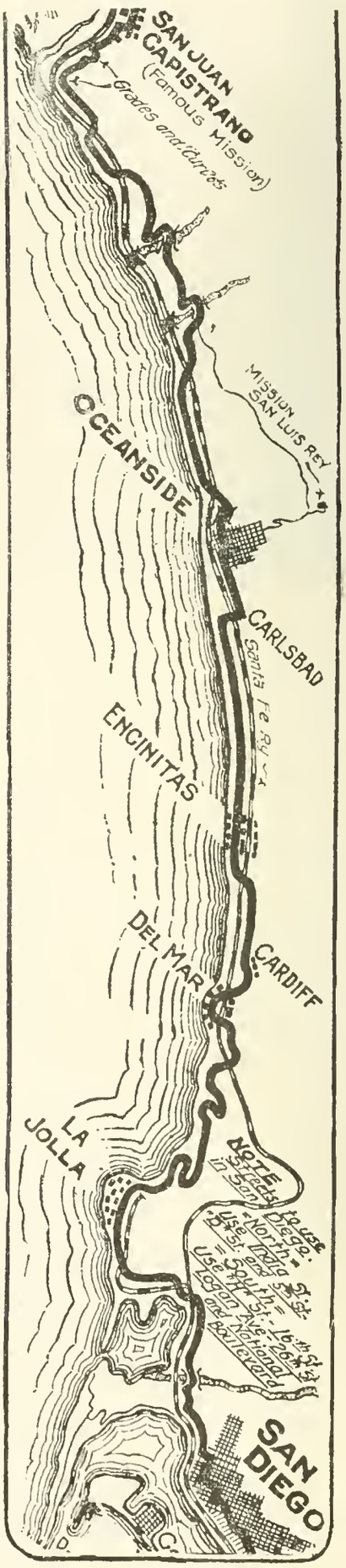
At this point the motorist will make a detour over a dirt road through Sorrento Canyon to the mesa just above La Jolla. At this point there is a choice of routes, the one to the right taking the motorist through the town of La Jolla, and along the bluffs to Pacific Beach, and thence around Mission Bay to San Diego. The road to the left is a much more direct route into the city, but not as picturesque as that via La Jolla.

In this motor journey from Los Angeles to San Diego there are several detours, due to the construction of the road between Santa Ana and Las Flores, but these detours have been well marked by the highway authorities, and no special difficulty will be encountered in negotiating them.

One must be careful of driving on the portion of road just beyond San Onofre Creek. Here there is a difficult piece of road which will require slow driving. Fortunately this rough stretch is less than two miles in length, and if driven carefully, no particular trouble will occur.

For those motorists who have not driven over the inland route, it is suggested that the return trip from San Diego be made via Escondido, Fallbrook, Temecula, Elsinore, Perris and Riverside. This road is in excellent condition from San Diego over the county highways to Rainbow, a point between Fallbrook and Temecula. In the vicinity of the latter town, a rough stretch of about five miles will be encountered, but from Elsinore through Ferris and Riverside the road is in splendid condition. From Riverside the new State Highway is now open to Los Angeles.

The inland trip can be made in one day of comfortable driving, though for those parties who leave San Diego about noon a pleasant stop for the night will be found in Riverside.



Russian River at Monte Rio.

A Visit to Old Fort Ross

Scenic Drive Over the Coast Range to the Old Russian Trading Post

PHOTOS BY ARTHUR SPAULDING CO.

From the standpoint of the picturesque scenery met with on a tour by motor car to Monte Rio and the Russian River is one that will enliven three days of easy driving for the average motorist. Taking in, as this trip does, a wide range of mountain, riverside and ocean shore driving, the run is so full of the appealingly beautiful in land and sea vistas that the automobilist turns his car back for the homeward run with regret.

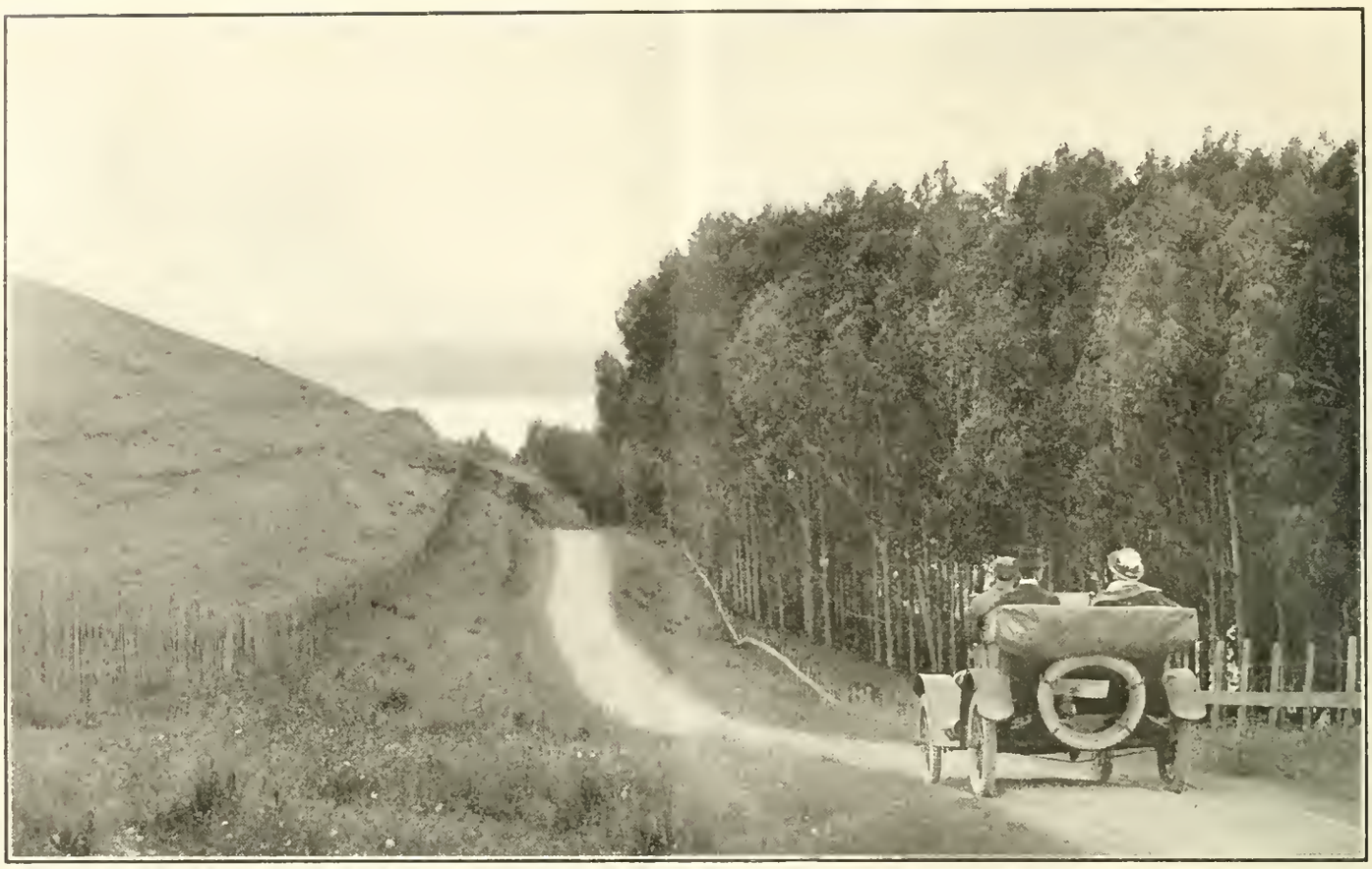
Starting from this city recently, a party of motorists took the boat to Sausalito and after arriving there the road to San Rafael.

At present the road between these two places is being replaced by the new State Highway, and motorists will have some hard going for some ten or fifteen miles. From San Rafael to Petaluma and Santa Rosa the roads, though in many places very rough, are passable. At Santa Rosa the party of motorists had supper, a task in this case that was accomplished as quickly as possible. From Santa Rosa on, via the steep and dangerous Guerneville road to Monte Rio, the party drove arriving in Monte Rio at 11:30 that night, after a number of unpleasantly thrilling experiences on the Guerneville grade.

Motorists who go to Monte Rio, via Santa Rosa and the Guerneville grade should not drive over it by night, as it is too steep, narrow and dangerous for any but the most experienced drivers. After a refreshing rest in Monte Rio on Saturday night, Sunday morning the start for a drive along the Russian River was made, and the drive alongside of the superbly beautiful stream rewarded the tourists for the former dangers of the trip.

The run alongside of the Russian River is one that will repay any one for taking, as the combination of wooded hills, coming down to the water edge, quaint little bays and inlets and tree clad isles, springing into view at every turn of the road, are as beautiful as any scenes in the State. Driving back after a wonderful day spent here by the Russian River, the party arrived in time for supper at Monte Rio, spending the night there, and early the next day getting under way for the drive home.

The party decided to go home by way of Camp Meeker, Tomales and alongside Tomales Bay to Point Reyes and so on down to Sausalito, and found that this



Coast road to Monte Rio.

route, in addition to being five miles shorter than by the Santa Rosa-Guerneville road, is in every way a better road, had no grade as steep as the longer way and that the road is nearly all the way back to Sausalito smoother and better than the other.

The road alongside of Tomales Bay is one of the most beautiful drives imaginable, and this, combined with the fact that the driving is over a highway that is in every way splendid makes this route to Monte Rio and Fort Ross an ideal one for automobilists.

There are few grades and good roads practically all the way. The road from this city via Santa Rosa and Guerneville grade to Monte Rio is a very much longer route, while the road is poor, steep in a great many places, and dangerous.

Proposed Scenic Road

With the proposed San Gabriel route to the Antelope Valley in the course of survey, as the result of action taken by the Board of Supervisors at a meeting held some time ago, representatives of the various chambers of commerce that have worked unremittingly for this notable addition to the scenic roadways of Southern California are encouraged to plan other equally important things for the country represented by the eastern part of San Gabriel Valley.

The Azusa Chamber of Commerce was the first body to consider the building of this road, and has since been seconded by the Chambers of Commerce of Whittier, Lordsburg, Claremont, San Dimas, Covina, Baldwin Park, Pomona, Puente, Glendora, Monrovia and Arcadia. For the purpose of pushing this and other important projects these bodies have organized into what is known as the Associated Chambers of Commerce of the San Gabriel Valley, representing over $300,000,000 worth of property, and meeting once a month at the different cities represented.

Covering approximately seventy miles along a route unparalleled for the magnitude of its beauty, the road follows the San Gabriel River from Azusa to the mouth of Susanna Canyon, for the first twelve miles, and here crosses the San Gabriel river on a 300 foot bridge emerging from the Susanna Canyon into Graveyard Canyon, gradually reaching an elevation of 2,850 feet. Sloping gradually to lower levels, the road leads through the eastern part of Robert's Canyon, following the west slope of San Gabriel Canyon to Laurel Gulch. Continuing the next five miles, the road rises to Iron Fork —reaching a height of 3,300 feet. It is at this point that the most complicated part of the construction will occur, owing to the many sharp ridges that prevail, and it is suggested that a bridge crossing Iron Fork 1,000 feet above its mouth be built, thereby eliminating a long and circuitous trip through the canyon.

Continuing from a point north of the junction of Fish Fork and the San Gabriel river, the road continues along the east side of the San Gabriel until the crossing of Prairie Fork is reached. Here another bridge must be constructed, and the road would follow the east and north slopes of Vincent Gulch until the summit northeast of North Baldy Peak is reached, at an elevation of 6,600 feet. Here the road traverses the divide from San Gabriel Canyon to the Big Rock region, following the north side of the river until Big

Rock Creek is met, and thence to Pallett Creek, from which point to Palmdale for eighteen miles the construction would meet with no unusual interference.

It is said that no roadway in Southern California offers to the tourist or to the resident more wonderful scenery. Traversing stretches of wild and rugged splendor melting into wonderful vistas of verdant valleys through which numerous streams purl and gurgle their way, the completion of the road means the opening of one of the most pretentious highways in the State. The Foothill boulevard to Azusa will lead the traveler to the proposed route, which will open one of Nature's treasure houses, with its glories of rugged mountains and blissful valleys, its cooling, limpid streams finding their source in the picturesque waterfalls above which baptize with feathery mist the woodwardias and ferns growing beside their hurried course down the canyon's side.

From Azusa to Palmdale, a distance of seventy miles, will be opened a heretofore untraveled path.

While much can be said of the natural beauty to be opened by this route, it is equally true that the commercial features of the project are important. For fifteen years the people of Antelope Valley have been struggling to get a road through this section of the country. An unlimited water supply, great fertility and abundant productiveness are making a road each year a more imperative necessity, and the people are behind the proposition to-day with earnestness.

A Legislative Committee, Chandler, Rush, Cogswell and Cuck, has investigated the proposed highway, relative to an appropriation for the construction thereof. The committee as a body has made no recommendation.

The report of the civil engineer who made the survey of the road describes it as a most feasible route. The most arduous feature of the project is the building of the bridge previously described at Iron Fork. From Pallett Creek to Palmdale, a distance of eighteen miles, there are no serious obstructions to be met, and to go back to Azusa, the beginning of the road, there is already six miles of road graded and in excellent condition that may well serve as a start to one of the most notable routes ever contemplated for the San Gabriel Valley.

The Associated Chamber of Commerce of the San Gabriel Valley, representing $5,000,000 and many hundreds of people, are pressing with all possible zeal this project which would open to the tourist, to the resident, to the automobile enthusiast seeking new sensations from the wonders that nature offers in this virginal fertility and freshness, a path that will also offer to the tillers of the soil a worthy means of conveying his products to a market.

The people of the eastern part of the valley are working and hoping that after fifteen years of effort the road of their dreams and labors may be realized.

Old Russian church shaken down by earthquake.

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THE RIGHT KIND OF TIRES.

A Building Contractor of Newark, N. J.
Went automobiling one fine autumn day
On the Boston Post road. As he neared New Rochelle,
He side-swiped another car coming like h——
(Or he may have *been* side-swiped—you never can tell.)
Be that as it may, the result was no joke,
For the force of the impact took out every spoke
From our hero's front wheel, while the rim and the tire
Rolled on like the 20th Century Flier;—
And propelled by the force of its former momentum,
Bumped another machine in the headlights and bent 'em,
As well as the hood, radiator and pump—
(Which in view of the damage was some healthy bump.)
But such was the impact, and such the resistance,
The tire rebounded a wonderful distance.
In fact, it rolled back to its previous station,
To the Building Contractor's great mystification.
The shoe was uninjured—the rim was unbent,
It fitted the spare—and onward he went.
Incredulous reader, the moral's a cinch:
Use tires that never give out in a pinch.

Plant Pay Trees on Highway

Something That Will Not Only Be Beautiful But Also Profitable

"County Forester Grant, in charge of tree planting for Orange County, sprung a surprise at the recent convention of the Southern California Arborcultural Association, in Riverside, when he read a paper in which he set forth that, by investing $400 in young nursery stock some time ago, it was going to be possible for him and his associates to put out 150 miles of highway shade trees, in a period of three years, at the ridiculously low cost of four cents per tree," says Howard C. Kegley. He declared that, in the city and county tree warden work, the first item of economy to consider is the matter of growing the trees in city or county nurseries and cutting out the heavy overhead expense, to a great extent, in that way. Mr. Grant's ideas are well worth adopting in other counties than Orange.

He is a man of wide experience in forestry work, having seen forestry service in India, Africa and Australia, as a forester of the English provinces, and in the forest reserve of this country as an humble servant of Uncle Sam's bureau of forestry.

He declared that America is fourth in the world in the importance of her forestry work, India leading all countries, Germany following and England being next in importance.

It has only been in recent years—perhaps the past ten years at the outside—that this country has been paying much attention to systematic shade tree planting along streets and highways, so there are many little ideas which have not yet been worked out, and doubtless many suggestions will be adopted by city and county foresters, from outside sources, during the next few years.

A suggestion which it seems that it might be well for the tree wardens of Southern California to adopt as quickly as possible is that of beautifying our streets and highways with trees which are at once ornamental and possessed of a considerable economic value.

A cow that gives four gallons of milk a day is just as ornamental and a great deal more valuable to the community in general than the cow that gives no milk, so why feed an unproductive cow? By the same token, why surround ourselves with trees which do not pay their way?

Long before the illustrious Napoleon met his Waterloo, it was proposed in France that fruit and nut trees, representing something beside expensive luxury, be planted along the highways of France. That was something like 400 years ago. Think how long ago that was, and we have not come to it yet; still we jolly ourselves along in the belief that we are the most progressive people on earth, and we are, in a way.

When the matter of planting fruit and nut trees along the highways in France was taken up seriously, the cry was that the plan would fail, because the people would be apt to steal the fruit of the trees. Whereat the ruling cardinal said:

"To whom should the crops belong but to the people, for the people own the trees."

The idea was taken up forthwith, and it was greatly elaborated during the reign of Napoleon. To-day and for many years, the annual production of fruits and nuts by the trees along the highways in France is of great importance in the matter of paying the expenses of general highway upkeep. The trees have always been a great deal more than self-supporting since they came into bearing.

Even in the Philippines this idea is being carried out, and yet we have not taken it up seriously in this country. The United States department of commerce has for years been planting profitable fruit and nut trees along the newly made highways of the Philippine Island interior.

While ahead of many other States in this work of systematically planting shade trees along her highways, this State has been going ahead decorating her roadsides and streetsides with trees that give no milk. What's that? Trees don't give milk? They don't, huh? How about the cocoanut tree? Well, anyhow, it is time for us to get on the right track. California of all sections of the country, and Southern California in particular, has no excuse for not planting profitable trees along her streets and roads.

Private individuals have for years been ornamenting their parkings and their roadsides with walnuts, almonds, apricots, and many other revenue producing trees, and where in Southern California can you find prettier lanes through which to drive for considerable distances than the walnut tree shaded thoroughfares in and around Santa Ana, Orange, Whittier

Mouth of the Russian River

Covina, Pomona and other cities? Out in the west edge of Pomona nearly every residence property has two walnut trees in front of it, and those trees annually produce more cooling shade and more English walnuts than the people who reside there can consume.

Why shouldn't each city and county produce enough walnuts or almonds, along the streets and highways, to more than pay the expense of keeping up the highway system? Along some of the roads in and around Redlands there are thousands of olive trees which produce about $10 worth of olives per tree each year.

Near that city, for about two miles on both sides of one railroad right of way, productive olive trees stand as a protection for the adjacent orange groves, and are at the same time ornamental, although we have many kinds of fruitful trees which are more ornamental than the olive.

The climate of California is so moderate that all parts of the State are suitable for the production of fruit and nut-bearing trees, but Southern California is so especially blessed with warm weather that it can produce even the tenderest trees such as the pili nut, the avacado, the almond and the mango. Hence there is little excuse for not planting some sort of productive tree along the streets and highways.

Up to the present time the work of keeping up the systematic planting of highway and street shade trees has been a serious drain on city and county treasuries, and it seems as though it would be a splendid plan to begin planting something that would pay its way and even contribute to the highway fund, rather than be an everlasting burden and expense.

It doesn't cost any more to prune and care for a productive tree than it costs to take care of an unproductive shade tree. So why keep the profitless cow?

The United States doesn't produce one-third as many English walnuts as she consumes annually. Hence it would seem that we could do worse than plant a few miles of English walnuts along the highways in counties where they thrive.

Let each county select the variety of productive tree that looks best and produces steadily there, and let's cut out the big item of the overhead expense that we are constantly accumulating in the systematic planting of shade trees along our streets and highways.

Supposing the poor folks do steal a few bags of nuts or a few boxes of fruit along the road. Well, if they go out and forage for their livelihood there will be fewer poorly nourished children in the families of the laboring classes, and there will be fewer candidates for lifetime passes to the poor farm.

The day is coming in California, and it is not many years distant, when we will not only want to but will have to make every foot of land produce something. So why plant unproductive trees along our highways and have to dig down in our pockets year after year to support them?

There is no real progress in temporary improvement, and that is really the kind of improvement we are doing in our tree warden work to-day, in nearly every community where the work is being done.

Yuma-Los Angeles Branch Ocean-to-Ocean Highway

Chafing at the delay in the construction of that section of the Riverside County driveway leading from Beaumont to the Palo Verde and Imperial Valleys, and realizing that unless work is soon begun there will be no automobile traffic over the Yuma-to-Los Angeles branch of the Ocean-to-Ocean Highway during the Exposition year of 1915, twenty-two of the business men of the city of Beaumont motored to Riverside to inquire of the Highway Commission as to the reasons for the delay.

Under the bond issue voted for and carried in November, 1913, a section of the road was to be built from Beaumont, west through the Moreno Hills to connect Box Springs with the road to Riverside from Perris. Another section was authorized between Beaumont and Banning, and a third and most important and longest of all was to be constructed from Banning east to the Imperial County line between Mecca and Brawley, with a connecting link running out of Mecca to the Palo Verde Valley.

Sundry surveys had been made, but no actual construction work done on each of these routes, and the people of Beaumont sought to ascertain why nothing had been done, and the prospects of speedy completion of this most important link in the Ocean-to-Ocean Highway. This feeling was intensified by the fact that certain sections of the system leading to the county seat were being built which were feeders of the main highway, while the main line running through the San Gorgonio Pass and bisecting the county east and west was left undone, it was declared.

The Beaumont party visited the district attorney to ascertain what action had been taken to acquire title to the several rights of way for which deeds had not been obtained, and to insist that the condemnation suits which had been started be prosecuted with despatch. The district attorney assured the committee that he would push his end of the work as expeditiously as he could. In evidence, he stated that suit had been brought against the owners of two tracts of land between Beaumont and Banning, and that they would be tried at the first available opportunity.

Old Block House, Fort Ross.

Joplin to California Over Arizona Desert

Sixteen Year Old Miss Drives Car From Home to the Pacific Coast

Across the continent to see California is the desire of the motorist of the East at the present time. They all want to see the State, and especially this city and the big exposition.

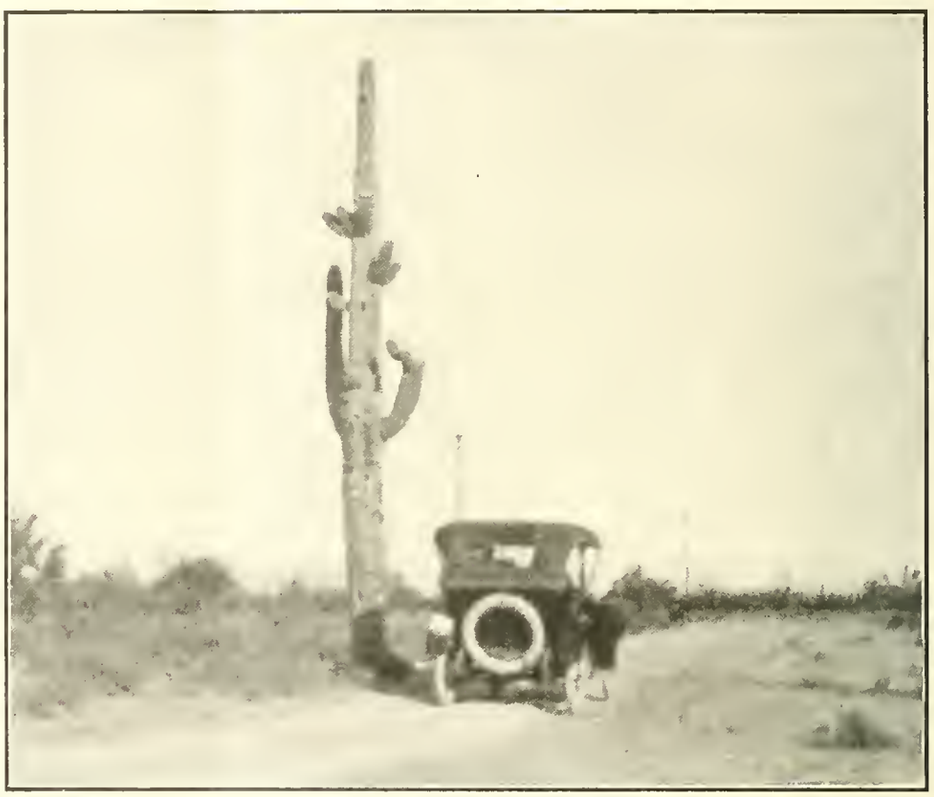
Recently, W. H. Frickelton and family of Joplin, Mo., arrived in the city, having come overland in their new Overland car.

Frickelton, who is a motor car dealer in Joplin, decided to spend the winter in San Francisco, and while handling other makes of cars, selected the Overland as the car he thought would suit him best for the trip.

Purchasing a new car, he and his family at once started westward by easy stages, leaving home on November 22d. Miss Jean Frickelton, his sixteen year old daughter, was at the wheel. She drove the car the whole distance.

In speaking of the trip, Miss Frickelton says: "It was the most enjoyable drive I have ever taken, and at the same time the longest. While it was hard work at times on account of the road conditions, it was, however, interesting, as we did not have the slightest trouble with the car, not having to think of it for one moment.

"We left home and stopped at Cherryville in Kansas for the first night, having had a most delightful afternoon drive over good roads.



Desert sentinel in Arizona

"The next day we drove from Cherryville to Wichita by way of Fredonia, and found the roads very rough. What made it especially annoying was that a great part of this day's travel was through flint hills, the tough rock being used on the roads, which took many miles off of our tires.

"From Wichita we came west by way of Dodge City to Liberal, Oklahoma, over very good roads. It was after leaving the latter place that we encountered the first of the sand which at times made the going slow.

"From Liberal our route lay through Guyman, Oka.; Amarillo, Texas, and Plainsville. This place is 85 miles from the railroad, and it seemed a 1,000 miles distance from good roads. In one spot we drove for twelve miles through the mud, most of it hub deep.

"The bad road continued until near Roswell, N. M., when we again reached fine roads and a most beautiful country. From Roswell we drove over the mountains, going as high as 9,000 feet above sea level to Alamagordo.

"Leaving Alamagordo, we went on to El Paso, thence to Deming, Douglas, Brisbee, Tucson, Phoenix, Agua Caliente and Yuma. It was leaving Yuma and through the Mammoth Wash that our car showed the kind of stuff that it was made

The road near Caliente

of. This is a sand bar six miles long and a place that is dreaded by all motorists.

"We were told before we reached it that we would not be able to go through on our own power. Our car had showed up so well on the trip that we decided to try, and deflating our tires, started through. Just as we were approaching the first of the sand we met a car coming out under two which had been hauled for miles.

"We started through on the intermediate, and shortly went into high, and fifteen minutes later came through on our own power in great shape. It was a splendid performance, and one which will be hard to duplicate.

"We then went through Imperial Valley to Brawley, and on to San Diego; thence to Los Angeles, and over the valley route finally to San Francisco.

"Our trip consumed 37 days, and our speedometer showed that in that time we had traveled 3,296 miles without the slightest trouble from the car, mechanicall or otherwise."

Forty Miles of Boulevard to Los Angeles

A motor trip of forty miles of boulevard with all the diversity of many a longer journey—canyons, broad valleys, hillsides and a road skirting the foot of steep, rugged slopes, then through splendid citrus orchards and finally a drive through one of the very finest residence sections of Southern California, has been mapped.

"The route from the western portion of the city is north on Vermont avenue to the Hollywood Hills, then turns to the right over Los Feliz boulevard to Sunset Pass. At the top of the pass there is a wonderful view of the snow-crowned Sierra Madre range, with Mount Wilson and Mount Lowe central figures of a panorama rarely excelled.

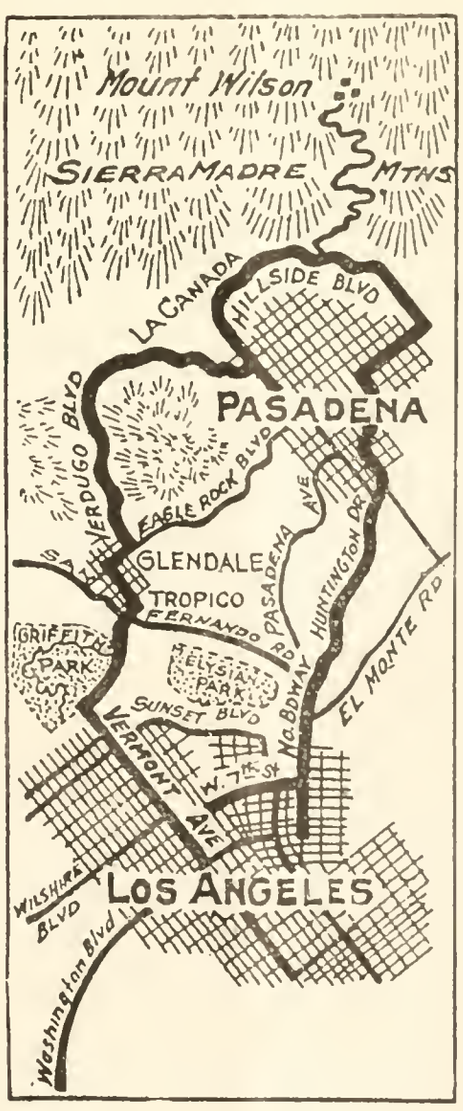
"Through Tropico to Central avenue, then north to Glendale, where turn right on Sixth street to Verdugo boulevard. The route through Verdugo Canyon is all macadamized and the oak-covered, rolling hills, closing in to a narrow pass, then broadly flaring out again, makes an intensely interesting drive.

"For those who like diversion there is a side trip just beyond La Canada which is well worth taking. It is to Flintridge Heights, and there our Hudson car was sent over curving roads, ever climbing to the crown of the hills, where the view across the mesa north of Pasadena and easterly to the broad San Gabriel, is a feature which at this particular time, with the snow-capped mountain peaks in the background, will be remembered as one of the really grand views of our country.

"Leaving Flintridge, the grade is downward over a splendidly built park-like road, which again joins La Canada boulevard at Devil's Gate Bridge over Arroyo Secco. This picturesque structure spans a narrow point in the gorge which has been long a center of attraction to those who love nature in her more rugged aspects.

"Great rock walls seemingly hem in the arroyo to a mere hand-breadth, and the spider-like steel ribs of the bridge seem all too frail to carry its load at such a height above the stream channel. From the bridge, the boulevard enters Pasadena, and then turns north through Altadena and along the foot of the abrupt slopes of Mount Lowe and Mount Wilson. The toll house to the road up Mt. Wilson is passed just where the highway turns south to join the Foothill Boulevard near Colorado street, east of Pasadena.

"On our trip recently, we left the boulevard a mile south of the toll house, and drove down into Eaton Canyon Wash, and then followed up the wash over the boulders and into side canyons on a still hunt for Christmas holly.



"An hour of this out-of-the-way driving yielded a tonneau full of Christmas cheer, and many were the exclamations of wonder from passing cars on the homeward way, as to where we could have found so much of the holiday garland beauties," says a writer in the Los Angeles Examiner.

"The homeward journey from East Pasadena has a double choice of route, both of which have decided merits of their own. The first is south through beautiful Oak Knoll and into the city via Huntington Park. The other, and probably more attractive route, is through Pasadena to Orange Grove and thence across the new Arroyo Secco Bridge to Eagle Rock boulevard, and into the city via Los Feliz road.

"Take it altogether, for a Sunday afternoon trip it would be difficult to find a more beautiful and interesting drive than that one, and the trip is especially appropriate at this time when so many Eastern visitors are curious to see the best of the country immediately around Los Angeles."

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Advantage of a Full-Floating Axle

One of the advantages claimed for the full-floating type of rear axle is that in the event of trouble in the transmission it is an easy matter to remove the driving shafts and tow the car home on the idle wheels. It is not generally appreciated, however, that the same applies to the ordinary semi-floating system. With this arrangement it is possible to clear one or both of the rear wheels of the driving relation merely by removing the wheel and taking out the driving key, so that it will turn on the shaft.

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——If frayed wire ends come in contact with the magneto it will immediately lose its value as a spark producing instrument.

Save the Shade Trees Along Our State Highway

Irreparable Injury to the Placerville-Lake Tahoe Road Threatened. Automobilists summoned to Save Trees.

When it comes to doing things that need to be done, particularly the tasks which are everybody's business, and, therefore, the business of nobody, one woman shall put a thousand men to flight and two women ten thousand.

A good illustration of this fact is offered by the effort now being made by a group of women in Placerville to preserve the trees along the Placerville-Lake Tahoe highway.

Placerville has a Shakespeare Club composed of women who see not through a glass darkly, but with a vision cleared and strengthened by much reading and study.

The women of the Placerville Shakespeare Club saw that the lumber interests were denuding the magnificent trees along this road, and having approached the owners, and having met with no encouragement in their effort to save the trees, they did not sit down by the wayside and weep large tears into their aprons, but as modern women with a commission, and particularly as California women, therefore knowing how to do things, they organized a movement to save the trees in spite of the work of the lumber men.

Having gotten the matter before the legislature they now call upon all automobile owners to lend a hand in saving the trees.

Imagine the Placerville-Tahoe road denuded of the giant sentinel trees which were standing guard when Rome was a village and Caesar in short pants. Let every reader of these lines take the time to drop a letter to the Senator or Assemblyman with whom he is acquainted, and ask the hearty co-operation of such Senator or Assemblyman in the efforts of these public spirited Placerville women. We present the case as prepared by the energetic secretary of the Placerville Shakespeare Club.

The subject of this letter has probably come to your attention in a general way through the columns of the popular Sacramento and San Francisco dailies. The Placerville Shakespeare Club is now requesting your support of a measure in the connection as explained by the following paragraphs:

During the past year, at least one company and several individuals have, either in a commercial or semi-commercial manner, cut, removed and destroyed stately trees on private owned land within the right of way and immediately adjacent thereto, of the State highway leading from Placerville to Lake Tahoe—a branch of the recently dedicated Lincoln Highway. The trees cut were of an immense scenic value to the highway, and others of equal value are in immediate danger of being similarly destroyed. This road, as you are aware, is one of the most popular roads within the limits of our State, and perhaps in the West.

The problem of preserving the natural beauty of our highways is not a local one. Perpetuation of scenery along our popular California roads is a State-wide problem. Sooner or later as timber becomes more accessible to market, and increases correspondingly in value, similar cutting will occur elsewhere. It is impossible to estimate the ethical value of trees so situated, and to allow this rare beauty to be wantonly destroyed for the sake of commercial and private gain is a great moral error.

The instance of the cutting mentioned in the preceding paragraphs and the general problem of maintaining the beauty of our highways, brings up the question of how such practices by the owners of land bordering the State thoroughfares can be prevented. The political codes of the State at the present time make no provision for it. The recent "Highway Act" is entirely inadequate in this respect, the Act of "Eminent Domain"—Article 1238 of the State Code—does not give authority to the State to condemn or purchase land or timber for the purposes involved.

The initiative inner-movement to preserve trees of great scenic value adjacent to the State roads must be taken by some one, immediately, and after corresponding with the State Engineering Department and the State Forester's Office, it seemingly has devolved on the Placerville Shakespeare Club to take the introductory step.

The movement to secure special legislation in this regard has been taken upon advice from the State Forester's Office, and for the reason that the Engineering Department is powerless to act in absence of proper authority.

If the three bills referred to above become a law, State officers in charge of our highway system will be vested with the authority necessary to purchase, or condemn and purchase, valuable scenic trees bordering the popular routes of travel under their jurisdiction. Pursuant thereto, three bills have been presented to this legislature by our representatives from this district—Senator E. S. Birdsall, and Assemblyman Robert I. Kerr.

On January 7th, Senate Bills 42, 43, 44, were introduced, dealing respectively with the purchase by the Engineering Department of additional strips of land and trees along State highways; amending the Code of Civil Procedure relative to exercising eminent domain for acquiring additional strips along State highways; and asking an appropriation for land and trees along the course of the Lake Tahoe wagon road. Assembly bills 12, 31, 66, cover the same questions, and have been referred to the Roads and Highways Committee; Assembly bill 31 was also referred to the Committee on Judiciary.

It is of great importance that these bills be passed at this session of the Legislature. The most beautiful trees on the Placerville-Lake Tahoe road will be felled before another Legislature convenes and immediate action is necessary.

The executive board of the Northern District of California Federation of Women's Clubs endorsed these bills at their meeting on January 2d. The Placerville Shakespeare Club earnestly solicits your assistance in the passage of these bills through the Legislature. Will you use your personal influence wherever it will be a help?

We are informed that these bills will come up soon for discussion, and therefore influence must be brought to bear now.

The general information conveyed in the above notes is more sharply defined and brought nearer to date by the following letter:

Jan. 11, 1915.

Mr. A. G. Briggs, Secretary,
Automobile Club of Northern California.
San Francisco, Cal.

Dear Mr. Briggs:

Since my return from Sacramento, I have been overwhelmed with correspondence relating to our trip. I hardly know how to write for publication, but will tell you about the meeting, and you can publish what you see fit of this letter. But one thing—please omit my name and give as from the Conservation of Forestry Committee of Placerville Shakespeare Club. I enclose a short account of the meeting clipped from the Club Women's notes of Sunday's Chronicle. Upon the urgent request of Mrs. A F. Jones, President N. Dist. C. F. W. C., a committee of four went from the Placerville Shakespeare Club to attend the executive board meeting in Sacramento on January 2d, to ask its endorsement of several bills relative to the preservation of timber along State highways, and particularly of the Lake Tahoe wagon road—a question upon which the club has been working since spring. We had drafted three bills which cover the matter, copies of which had been previously mailed to our representatives in the Legislature. Senator E. S. Birdsall and Assemblyman Robert I. Kerr.

This committee stated the question to the executive board and asked for their endorsement of the measures which was readily given.

State Forester Homans and his deputy attended the meeting, as did also Senator Birdsall and Assemblyman Kerr, and the drafts of the bill were left with these legislators to be put in exact form.

Our committee then had a conference with Mr. Nylen, president of the board of control. Mr. Nylen told us of the scarcity of funds, which we already knew. But upon our stating that we were asking for an appropriation to cover the cost of purchase of only such trees on the Lake Tahoe road as would be felled before another legislature met, he was favorably impressed, and requested that copies of these bills and a map of the road, which we had with us, be left with him.

On January 7th, Senate Bills Nos. 42, 43 and 44 were introduced, dealing respectively with the purchase by the Engineering Department of additional strips of land and trees along State highways; amending the Code of Civil Procedure relative to exercising eminent domain for acquiring additional strips along State highways; and making an appropriation for land and trees along the course of the Lake Tahoe wagon road.

Mr. Kerr introduced in the Assembly on January 8, Bills Nos. 12, 31 and 66, which take the matter inthe same order as the Senate Bills. Assembly Bills No. 12 and 66 have been referred to Committee on Roads and Highways, No. 31 to the Committee on Judiciary.

We greatly appreciate receiving your letter at Sacramento assuring your willingness to co-operate through the legislature. We have yet to hear of opposition, but everyone speaks of the need of just this thing being done. But of course we must expect opposition and must not feel too sure of success. What we need badly is someone on the ground to watch just what moves are being made in the Legislature in regard to these particular Bills. Have you any one who can do this? We know Auto Clubs are asking certain things of this Session and perhaps your association could keep our Bills in sight also. We are fearful of their being lost in Committee, etc.

I am enclosing a copy of a letter which this club is sending to any person or organization which we think might help. Will you keep us in mind, watch for anything pertaining to these Bills and work for their successful passage through the Legislature?

Very truly yours
(Mrs. P. S.) Stella Tracy, Sec.

This movement to save the Placerville-Lake Tahoe Highway will receive an additional impetus at the annual convention of the Northern district of the California Federation of Women's Clubs which will be held at Sacramento on March 23d, 24th and 25th. The local board at Sacramento is engaged at the present time in making elaborate plans for much work and some play during the days the district is convening. The members of the Chamber of Commerce of Sacramento have promised to cooperate with the local board in extending to the visitors the hospitality of the town.

A matter of great interest to the members of the Northern district is that of saving the trees on the Lincoln Highway along the Placerville-Tahoe wagon road. The civic section of the Placerville Shakespeare Club recently sent a delegation to confer with the executive board of the Northern district, and to be present at a session of the State Forestry Commission, to the end that such scenic beauty might be preserved. It has been announced that State Forester George M. Homans has pledged his support to bills which will be advocated by the women's clubs of California at the Legislature to prevent the destruction of the trees along the highways of the State. Senator Birdsall will introduce the bill, which has been prepared at the instance of the Placerville woman.

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Some Name

A young mother living in the Highlands, rather inclined to be romantic in her temperament, was troubled because she could not find a name that suited her fancy for her first-born, a boy. One of her friends called at her home one day with a touring car, and took her out for a ride. They were spinning along one of the country pikes in Jefferson County, when they passed a big barn. One of the doors was open, and a curious name was painted on it.

"Ah," said the fond mother to herself, "there's a name for my boy; at least a part of it. 'Nosmo,'" she read, and repeated a number of times so she would not forget it. "I never heard the name before," she confided to herself. "They'll all wonder where I got it, I'm sure. Isn't it romantic to find a name that way?" she mused.

The big car continued its way over the country pikes, until finally the afternoon had almost passed away. The young mother was elated that she had found a name for her infant son.

On the way back, when they passed the same barn, she turned to see the name once more, but the door had been closed. However, the door by its side had been opened, and there was another name on that one.

"Oh, there is the middle name for baby!' she almost spoke aloud, she was so elated. Some one had painted "King" on the door. "Nosmo King," she said to herself; "and won't daddy be delighted that we have a name for baby?"

So when daddy came home, the name was announced to him. Daddy was elated. So were grandma and grandpa. The whole family were tickled with the name.

Three weeks later the mother took her baby out for a ride in the same car. They passed by the same barn. Both doors were open, and when the mother saw the name she collapsed. She had named her boy "No Smoking." Now she calls him plain "Tom."—*Louisville Times.*

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——The wheelbase of the average car listed at over $3,000 has increased steadily for 5 years. In this period there has only been one increase, five inches, between 1911 and 1912, and since then it has steadily climbed up one inch per year. The five-inch jump was due to the six-cylinder movement which in that year grew from practically zero to 44 per cent.

Beaumont and Banning Road Work Begins

The work on the link of the county highway system between Beaumont and Banning, in Riverside County, will be begun within the next month. The citizens of the San Gorgonio Pass, being dissatisfied with the progress made by the commission in the construction of the various portions of the system lying in the eastern end of the county, made such a protest at the meeting of the Supervisors in December that the commissioners became immediately active and instructed their attorneys to bring condemnation proceedings to acquire title to various rights of way in order that nothing might stand in the way of the actual construction work.

Titles to the two pieces of land in controversy between Beaumont and Banning have been acquired by deed during the past month. The Supervisors of this county have authorized the commission to begin work at once either by contract or by local labor at day's work.

Monday morning a corps of engineers under instruction from the commission began a topographical survey of this link and are now setting grade stakes so that everything will be in readiness for the actual construction work.

Meantime the citizens of the Coachella Valley, believing that the desert end of the highway, which is one of the most important stretches in the proposed Ocean to Ocean Highway, would not be constructed before the excessive heat of the summer made work impossible, held a public meeting at the Thermal Baptist Church to protest.

After a spirited discussion over the situation, the following resolution was passed:

"Resolved, That the dilatory measures of the County Highway Commissioners is hereby condemned and that the practice of depositing county funds in banks at a nominal rate of interest is not conducive to the immediate building of the county highways for which the money was voted, and that the attention of the Grand Jury is hereby called to the condition of things and an investigation asked for."

The amount of bonds voted for highway purposes in November of 1913 was $1,125,000, and the amount expended to date is in the neighborhood of $50,000.

The county of San Bernardino which recently voted a large sum for highway purposes has only offered a half million for sale at this time, thus effecting a large saving in their annual interest charges.

A petition is being circulated among the voters in the eastern end of this county, asking the State to appropriate the sum of $200,000 to assist in the building of an automobile highway between Banning and Yuma by way of Coachella Valley, Brawley and the Mammoth Wash.

Gets Ten Days

Wilbur Lain, chauffeur for Dr. A. J. Minaker, was sentenced to ten days in the county jail by Police Judge Shortall recently, without the alternative of a fine, for driving an automobile while intoxicated. Frank W. Chapman, owner of a rent car, was complainant against Lain. He testified that he had a load of passengers on the Ocean Boulevard, and that he tried to steer to one side of Lain, who was in a machine in front of him.

Lain apparently disregarded his siren and clung to the roadway. In order to pass him, Chapman would have to run the risk of going over the bank. He tried to make the turn on the other side and took off the wheel of Lain's car. The police investigation discovered that Lain had been drinking, and arrested him. Judge Shortall first fixed the penalty at $50 fine or ten days, but on learning that Lain would have no difficulty in raising the sum, changed his order and eliminated the fine.

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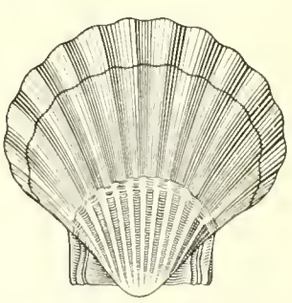

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High up in the San Bernardino Mountains

The San Bernardino Mountains, the great scenic region of Southern California, were compared with the Alps of Switzerland during the jaunt by newspaper men of the Southland over the 150 miles of mountain highways recently.

"I have stood amid the mountains of Switzerland and drank in the beauties of Mount Blanc and the Matterhorn," declared Chester M. Kline, an editor from San Jacinto, who has traveled much of the world, "and after this journey I must tell you that lacking only the glaciers and perpetual snow caps, we have in the San Bernardino Mountains scenes which surpass any and all of those famed vistas and many times more of them, with infinite variety." Kline declared he desired to return to the mountains and see them when they are manteled under the winter's snow.

J. P. Baumgartner of Santa Ana commented: "The scenes are incomparable in sublimity, in delicate shading and ever-shifting vistas. We never shall forget the unfolding of the panorama of mountain and canyon, lake and valley, and 'See America First' takes on from this experience a new and broader significance. We know that mortal conception may not embrace more of beauty and grandeur."

The newspapermen went over roads that cost $1,000,000 to build, and they told the members of the board of supervisors of San Bernardino County that they had spent their money well.

The trip led up the new road of Mill Creek Canyon, which winds up the slope of Mount St. Bernardino to Seven Oaks. On this road there was expended $45,000 this year. It is to be continued into Bear Valley, through a new and virgin region.

A mountain storm greeted the newspaper men as they went up through Mill Creek. The sun shone on them from the west, and rain from the east beat into their faces. Just as sunset a great bolt of lightning struck a huge pine tree, and it blazed out in fire.

At Seven Oaks, after spending the night there, the newspaper writers turned back to the west through the Barton Flat region, to reach the Santa Ana Canyon road, the main route of travel into Bear valley in the eastern portion of the range. They were shown the general direction the Mill Creek road is to take into Bear Valley.

The ascent up the Santa Ana road, from the Bear Creek Hill where the Barton Flat road joins it, took the party to the highest point in Southern California reached by a road, the summit, about 8,000 feet. Towering above, and forming the roof for Southern California, are Mt. San Bernardino and Mt. San Georgonio, each about 12,000 feet.

Bear Valley, thirty-eight miles from San Bernardino, was reached early in the afternoon. The valley looks from afar like a beautiful garden holding up a lake of blue.

The four trucks of the party wound their way about the Bear Valley country, and there were visits to Bluff Lake, a run across to Gold Mountain, with glimpses of the desert, and to Baldwin Lake, which was black with millions of wild ducks.

At Bear Lake there was fishing, picturing and tramping.

Pineknot Lodge that night was the scene of an "experience" meeting of the newspaper men, and they told of their travels, and marveled at the beauties they had seen during the first two days of their trip.

The roads which they had traveled during the two days of the trip to Bear Valley were good. At the Bear Creek Hill, in the Santa Ana Canyon, the old peril of that route, workmen had about completed blasting the way through for a new ascent, to greatly reduce the grade. Within a few weeks this work will be completed. The new road has been hewn out of solid rock.

The Mill Creek Road, which has all been constructed this year, was just a trifle soft, but the rains of winter will harden it for traffic next summer. Like other roads of the San Bernardino Mountains, the Mill Creek road clings to the tops of great canyons.

Snow will close the Bear Valley road late in the winter, and the duck hunters will be required to enter the region during the latter part of the season by the way of the desert road. The Cushionberry grade has been eliminated. It was once the steepest grade in Southern California.

There was considerable sentiment connected with the visit of the newspaper men at Pineknot, for the writers asked and received the donation of the greatest pine tree of the mountains, standing near the lodge, and they named it "Sam." Samuel Pine, chairman of the Board of Supervisors of San Barnardino County, is one of the leading good road boosters of Southern California. A brass plate will be placed on the pine, with the simple inscription, "Sam."

The triple falls of Mill Creek were named James Falls, in honor of Supervisor J. C. Jones, another good roads booster, and a majestic point in Mill Creek was named Glover Point, for Supervisor J. B. Glover.

On a new road to be built on the crest, swinging out over the dam from Bear Valley direct to the head of Deep Creek, a point has been selected to be named in honor of Supervisor George E. Butler, that looks over all of Southern California. It is Butler who is guardian of the mountain roads of San Bernardino County.

Following the night at Bear Valley the party started on the climax of the trip, the thirty-seven mile ride along the very crest of the ridge, 6,500 to 5,000 feet in elevation. The newspaper men looked over all of Southern California. They could see nearly to the State lines of Arizona and Nevada, to the north and east and to the south and west they could have seen the Pacific but for the distant fog.

Little Bear Valley was sighted from the summit of Deep Creek. The desert had already unfolded as far as Death Valley, from the rise beyond the "Snowslides," and at Fredalba, after winding along with the waters of Deep Creek on the old lumber railroad grade, now made over into a boulevard, the great valleys of Southern California came into view, and for miles there were views that stretched away until the earth seemed to vanish. Other mountains were like pigmies below.

The road was 37 miles over the crest from Bear Valley to Pinecrest and in good shape. This, too, had been built this year and was a little soft, but the car had no difficulty at all.

The last really great views of Southern California came when the party cut across the face of Strawberry Peak, where the road clings to the cliff that falls away in a sheer drop of 2,000 feet, and again as Pinecrest was reached.

It was then seventeen miles back to San Bernardino, through Squirrel Inn and Skyland, and down the switchbacks into the beautiful Waterman Canyon, past the Arrowhead Hotel and into the Gate City.

There are two notable extensions to the great highways which the newspapermen saw, to be made next year and the year following. From the head of Deep Creek into Bear Valley, on the crest, the greater scenic region to the south of the present route via Holcomb Creek, is to be the path. A bridge will be built directly over the big dam at Bear Lake, the road entering at the south instead of the north end of the valley.

The Mill Creek Road is to be continued from the summit above Seven Oaks into Bear Valley, joining in the great loop system The surveys for these two roads have been made.

Wonderful Drive Through the South

Five Days Outing with the Noted Racing Driver Harris Hanshue

"It looked more like a torpedo boat than a motor car," says Harry C. Carr in the Los Angeles Times.

"Harris Hanshue, the former race driver, said he had come to take me for a little ride to try a new car. Before we got back we had traveled over 500 miles; climbed mountains, swam mud holes, clung to the edge of precipices, plowed through deserts and raced a train.

"'Some car,' announced Hanshue, briefly, as we ended the trip at the end of the fifth day.

"We started on Friday before the San Diego automobile races. It is not very much to the credit of the State Highway Commission that the worst roads we found on the whole trip were between Los Angeles and San Diego.

"As long as we were on the county boulevards it was wonderful going. But the detours around boulevards now under construction are something fierce. At one point where the temporary road skirts another temporary road and climbs up a steep hill so muddy that it was like traveling through dough, I wanted to turn back and quit the trip, but Hanshue just grunted, threw in the intermediate, and the little old torpedo boat slid through the mud like a turtle.

"We got into San Diego late in the afternoon, and as the auto races happened the next day, we felt in duty bound to go. To my mind, one of the finest cures for insomnia is an auto race. The idea of an auto race is that several cars start around a road, and they keep going around and around, and after several hours a man in puttees waves a checkered flag and you rouse yourself to discover that one of the cars got around before the other car did. It is about as thrilling as adding up a butcher's bill.

"The automobile editor, in the press stand across the track, sent over a message, asking Hanshue and me to try to look less bored; we were crabbing the show.

"That night at the hotel we fell in with some really charming young men from Imperial Valley—young men of the type who are turning the desert into a wonder land. They wanted to show us around a little; so early the next morning we turned the nose of the little torpedo boat to the south out over the Campo Mountain road.

"It was the beginning of one of the most interesting trips I ever traveled. I recommend it as the best auto tour in California. You slip along mountain roads, through queer little mountain towns with strange Indian names, where the village wiseacres stop whittling long enough to wave to you as you go by.

"It is a splendid road; one of the mysteries is why the State Highway Commission should spend a small fortune, needed on so many other roads, to make this one over again.

"We had started about 9 o'clock. Toward noon we were hanging on to a little wrinkle of a road that cut into the mountain side. Hanshue on his side of the car could look down over the edge of the precipice and spit into a far valley beneath. I extended my fervent inward thanks to the factory for having built a car with a left hand drive. When we started down the mountain on the other side and I hung over the edge myself, I made up my mind that the left hand drive wasn't so much after all. In one of the Phoenix races Hanshue broke his lighting system and raced over this road in the dark.

"At noon we stopped at Campo, an attractive little settlement guarded by cavalrymen. The international line divides the town. You eat lunch in Mexico, at the excellent little inn, and take on gas, if you want any, a hundred yards away in the United States.

"From Campo we scudded down through a meadow valley, past more little cross road towns; then we began to climb again.

"One of the most extraordinary features of this trip was the number of cars on the road. From the time we left Los Angeles until we returned we were never out of sight of an automobile. Between San Diego and Imperial Valley the road fairly wriggled with them.

"Climbing the grade beyond Campo we came suddenly around the shoulder of a hill and a most wonderful panorama stood out before us as though some one had raised a curtain. In the foreground were the desert hills—ash of roses and gray under the desert sun—and beyond—Imperial Valley—the "wine dark flats below"—and beyond the valley the thin blue line of the distant mountains.

"Then began the long coast down the Mountain Springs grade. To show you the number of autos on the road, when we passed through Mountain Springs, five cars were drawn up in front of the store.

"The geological formations are astonishing on this part of the road. The rocks look like mountains of twisted molasses candy.

"Coming out through the pass and then into the open valley above Coyote Wells, we passed a big grading camp where the State Highway Commission is blasting out a crease in the rocks for an altogether unnecessary road on the opposite side of the canyon from the splendid road already there. A squirrel would have the time of his life at the headquarters of the State Highway Commission.

"Near Coyote Wells we passed the line of the new Arizona-to-California railroad. They began building the road seven or eight years ago, and by the time seven or eight more years have passed, more of the road will have been built. If the supply of years doesn't give out, San Diego may have a new road some day.

"From Coyote Wells to El Centro, the boulevard is like a cement walk. In the days of his road racing, Hanshue told me how he used to plough through thick sand on this stretch.

"We only stayed a few minutes in El Centro, and hurried on to Brawley, where we arrived in time for dinner. We left again the next morning for Los Angeles by way of Calipatria.

"The latter is the newest town in the desert, but one of the best ever built in a new country. Its fine new buildings look as though they had just been taken out of the box.

"While we were in Calipatria, the village cut-up was giving an exhibition of fancy horsemanship on the main street, whirling a big riata around his head and tearing up and down like a wild man. The game finally began to pall on the broncho. He humped up his back and made two stiff legged jumps, and the village daredevil picked up the pieces of himself and retired, much crest-fallen, followed

by the jeers and laughter of the whole town.

"At all the desert towns they solemnly assured us that it would be impossible to break through to Los Angeles, except by way of San Diego. Hanshue insisted that he was going to try the trip with the boat. To his great disgust the road was excellent, as desert roads go, all the way through.

At Brawley we found Harvey Herrick —twice winner of the Phoenix race and now connected with the Apperson. He drove us back to Los Angeles. It was a wonderful experience to see him snake a car at full speed over a desert road. Herrick is said to be the finest rough road driver in the world. Just ahead of us a big car, driven by a couple of tenderfeet from Illinois, had made the trip. Unused to desert driving, the track of their big tires looked like a cork screw.

"At high speed, Herrick followed the trail, following in the tracks of the other car.

"The road goes to the west of the Salton Sea. We made a wide detour around Mecca and Indio, arriving at Coachella as it was growing dark.

"They decided to continue on through Palm Springs, where is a peach of a little hotel. It was a weird, queer, desolate experience, sneaking along in the dark, in among desert buttes, past little desert farms and across washes that sometimes showed no roads at all.

"At Palm Springs we found Wheeler, the Indianapolis carburetor king, and a lot of other people and left with them the next morning for home.

"Hanshue and Herrick say the road through the White Water Wash used to be a fright. Autos sometimes got stalled to the point where nothing but a two or three mile walk for a plank would pry them out. It is now in good condition, and we had no trouble in going through on the high.

"We had lunch at Riverside. In time, this trip that we made will become one of the standard auto tours of California. It has everything—the trip along the beautiful San Diego coast, old San Juan Capistrano Mission, the wild scenery of the Mountain Springs grade, the quaint old fashioned mountain towns of California of fifty years ago; the new desert of opportunity where young men are building fortunes in Imperial Valley, the strange Salton Sea country, Palm Springs and the citrus country among the luxurious ranches of Redlands and Riverside, not to mention Smiley Heights and Magnolia Drive. When it comes to "seeing America first" you can certainly get an eyeful on this route.

"We went rushing through. At least two weeks should be devoted to the trip."

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——The many motorists who use the Alviso road will be glad to learn that Supervisor Henry M. Ayer intends to pave that highway from the city limits to Alviso. When this new road is completed a better entrance will be had to the South Bay Yacht Club and other points. The surface is to be composed of asphalt and macadam.

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Interesting Items Gathered from the Four Winds

Tire Dealers Form Association.

Action toward the permanent organization of the motor car tire and accessory dealers of Fresno was taken recently when thirty dealers met at the Commercial Club. The organization will be known as the Fresno Automobile Tire and Accessory Dealers' Association, and meetings will be held the second Wednesday night of each month. C. H. Williams was elected temporary chairman and E. E. Thompson temporary secretary. A committee on organization was appointed as follows: George R. Murdock, C. H. Williams, L. M. Mendelsohn, G. S. Waterman and C. H. Cobb. The promotion of better business co-operation among the dealers and the prevention of price cutting are the objects of the association.

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Some Stealing.

Since the first of last January, automobile thieves in Philadelphia have stolen 162 cars, valued at $181,195. Of this number the police report that 136 cars, valued at $145,000, were restored to their owners. Almost every one of the stolen machines was dismantled and its parts replaced by the parts of other stolen automobiles. At present the Philadelphia police are investigating a new brand of automobile crook, "the planter." He insures a car worth $400 or $500 for $15,000 or $2,000, and then conceals it or hires somebody to run away with it. He reports to the police that the car is stolen and at the end of sixty days collects the insurance money.

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Watch Where You Stop.

A New York court has held that when a teamster stops his wagon diagonally across the highway, leaving an insufficient space for an automobile to pass in the rear of the wagon when the car is in plain sight, he is guilty of negligence, and the employer must stand for any damages which result to the automobile by reason of the same.

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Eastern Rubber.

In order to meet the competition of Far Eastern rubber, which can be produced for half the cost of collecting rubber in the Amazon district, the Government has employed experts to instruct the rubber collectors of the Amazon in more scientific methods of tapping trees, and has provided for a gradual reduction.

High Gear Reverse Helps.

It has been proved in the present European conflict that on touring cars serving for reconnoitering purposes a highly geared reverse and a duplicate steering set, allowing the car to be driven stern first, are most valuable adjuncts. On this type of car there are two reverses, a low and a high, and a duplicate set of sparks and throttle controls on the emergency reverse steering wheel. For raiding purposes this type of vehicle is invaluable. It can run into positions which the driver of an ordinary car would consider extremely dangerous, and can get away again with ease. The amazement of the attacked troops is great on finding that the attacking car can move astern as fast as it has come ahead.

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A New Scheme.

Aiming to introduce a new convenience for its patrons, a garage in Detroit has arranged to take care of all packages sent to those who store cars with it, and place them in the cars of those to whom they are consigned. This plan, which is no extra expense for the garage, makes it much easier for the business men who leave their cars there during the time they are in their offices, is calculated to get them a much larger patronage.

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Want to Go to War.

At a meeting of the Toronto Chauffeurs' Protective Association, of Toronto, Canada, three hundred men offered their services to the military authorities. A message sent to Major-General Lessard from the meeting stated that of the number thirty were ready to leave at once. Men of experience who could handle and do mechanical repairs on every kind of motor vehicle offered their services. Several of them had military training.

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Beauties of Winter Motoring.

Days when the mercury is around 30 hardly appeal to the automobile tourist unless he is equipped with pocket heaters, foot warmers and similar accessories. However, if any autoist wants to see some sights of real beauty, let him roll his car out on the Columbia River Highway, now open to the public.

Every waterfall along the road is an immense pillar of ice. Every shooting bit of spray is seemingly caught by Jack Frost and transfixed where it fell.

It is a sight well worth the trip and one which likely will not occur again for several years, as it takes at least a week of consecutive cold days to freeze the falls as they are now.

Multnomah Falls is a column of ice from top to bottom, over which the water still is spurting, and the column is getting bigger every day. The smaller falls are frozen almost solid.

Near Latourell the spray has been driven to many of the surrounding rocks and the scene looks like a bit of fantastic stage artistry. Many of the trees have their load of ice and the whole is a composition of formations rare for this part of Oregon.

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Real Work.

The latest thing in the London "smart" circles is for wealthy women to get together a couple of motor cars, fit them up as ambulances and start for the scene of the war.

Miss Maxine Elliott is the latest to do this, in company with her close friend, Millicent, Duchess of Sutherland. They are, of course, all licensed by the Red Cross, but it is more or less open to the fair owner to choose her own sphere of usefulness.

Miss Elliott's splendid car has been fitted out with all the latest appliances for the comfort of four wounded and a nurse. It probably will be used for transporting wounded from the hospitals behind the lines to the base hospital.

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Dead Line.

Throughout the downtown section of Grand Rapids a white line painted along the streets, six feet away from the running boards of the trolley cars, will hereafter keep motorists confined, is a resolution submitted to the city council. The plan also provides that another line, running across the street fifty feet from any intersection with another street shall warn motorists where to stop when held up by traffic regulations.

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Delivery Motor in Norway.

Norway is gradually increasing the use of motor delivery wagons, and it appears only a question of time before they largely take the place of horse drawn vehicles, especially for transporting lighter articles. At present there are about 150 motor delivery vehicles, including 14 motor trucks, now in use out of a total of about 700 motor cars in Christiana and 1,100 in all Norway.

Of Interest to the Motorist who Owns a Car

Wheel in Center.

A new idea in the design of electric pleasure cars is that of placing the steering wheel in the center. The driver's seat is placed a little forward of two passenger seats, one on each side. The brake levers are placed one on each side of the steering pillar. For city service, for which electrics are almost exclusively used, the center drive is claimed to have advantages over either right-hand or left-hand drives, and provides a more symmetrical seating arrangement.

New Seating Arrangement.

Two interesting new ideas in the seating arrangement of an automobile have been brought out by one of the leading American manufacturers for 1915. In the four-passenger car the rear seats are separate, and can be moved forward and backward on sliding tracks and also turned slightly sidewise, this arrangement making it possible for passengers to group themselves sociably and with more comfort than in the ordinary type of rear seat. In the six-passenger car the extra seats are so constructed that they fold into spaces at the rear of the front seats and are covered by leather curtains when not in use. In both types the driver's seat is separated from the front passenger seats by a passage way, so that a passenger may change from the front to a rear one at will.

To Grease Chains.

A mixture of graphite or plumbago and grease is often used on the chains, chain wheels and chain sprockets of chain-driven cars, especially in places where such chains are not protected by efficient chain cases.

Use Wood Alcohol.

Wood alcohol applied with a sponge or cloth is one of the best methods of cleaning either cloth or leather upholstery. A mixture of linseed oil and turpentine is sometimes recommended for cleaning leather.

Deep Cut in Tire.

A deep cut in a tire, which partly severs a piece of rubber and allows it to flap should receive immediate attention, because the loose piece is apt to tear off more rubber, and so make the damage worse than at first. This is particularly true of solid tires.

Kerosene Will Help.

The power of kerosene to penetrate between metal surfaces that are incontact is surprising, but it requires time, and if sufficient time is not allowed no good results can be expected. Soaking for several hours generally is necessary.

Use Metal Terminals.

It is far better to use metal terminals on battery wires than to merely wind the barbed wire ends around the binding posts; the special terminals hold better, look better and give better contact. If no terminals are used, however, the wires should be passed around the post so that the tightening of the binding nut will tend to wrap it more closely rather than to unwind it.

Watch Use of Ignition Lever.

Improper handling of the ignition lever is not always the cause of overheating the motor with a well adjusted carbureter. It is entirely possible for the magneto coupling, in some cases, to become loose and permit the ignition to lag, despite the advancing lever, and the same thing can result from loose connections between the lever and the timber. On the other hand, loose connection of the latter variety can cause pounding due to too much advance, despite the retarding of the lever when the motor slows down.

Holes in Muffler.

The holes drilled in mufflers sometimes are rough and ragged, with the result that the escaping gases set up a whistling noise anything but agreeable. Smoothing off the rough edges will usually eliminate the unwelcome sound.

A Driving Tip.

When driving wheels get into the mud so deep and so slippery that traction cannot be maintained, it is a good plan to throw dust. sand or straw into the mud to thicken it and partly lessen its lubricating qualities.

Starting and Lighting Systems.

Despite the fact that a well built electric lighting and starting system gives little trouble, it is important that the devices provided by the manufacturer to indicate the derangement should be watched. It is almost as easy to form the habit of looking at indicators as it is the habit to ignore them.

Spring Leaves.

When two or more leaves of a spring break, it is not advisable to install new leaves without setting the spring. If the spring is used for some time, its set is different from that of the new leaves installed, and the effect often results in another broken spring very soon.

Drain Off Gasoline.

If an engine has been standing for some time it is advisable to drain off the stale gasoline in the float chamber of the carburetor. Any moisture or sediment will also be removed by this operation, and a lot of possible annoyance avoided.

Motor Should Not Labor.

A motor should not be permitted to labor, even if it can be kept going. When running very slowly the sudden blows of the explosion, acting against the resistance of the slow-moving crank shaft, set up with tremendous stresses that are as dangerous as they are unnecessary.

Although dry cells seldom are a source of energy for electric lights it should be remembered that when they are used the voltage of each cell is a little more than one. When six are connected in series to feed six-volt tungsten lamps the filaments are likely to be illuminated too brightly to permit of normal life.

Valve Grinding.

A good valve-grinding compound is the "sludge" deposited in the bottom of a grindstone trough. It is less sharp than emery, but is excellent for valves that do not need a great deal of cutting down, and for finishing work.

Renewing Exhaust Joints.

When renewing exhaust joint washers care should be taken in the size of the new washer. The efficiency of an engine is often reduced when a washer is renewed, owing to the diameter of the central hole being larger than the interior diameter of the exhaust pipe. Of course when a washer is cut from sheet asbestos and the central hole left smaller than it should be, the passage of the exhaust gases very soon blows away the surplus asbestos protruding within the pipe, but when a joint is formed with a copper covered asbestos washer the restricted bore is likely to prevail for some time—probably permanently.

Leaking Flange Joint.

Nothing is more exasperating than the persistent leaking of a flange joint on the manifold, where copper is used for the gasket. The trouble, however, always can be remedied by cutting a groove around the post with a cold chisel, and another around the hole of the flange. When the studs which hold the manifold in place are drawn up, the gasoline is compressed and partially fills the grooves —sealing the joint.

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Stiff Inner Tubes.

If inner tubes that have grown stiff or hard by being placed in a bath of one part concentrated ammonia and two parts of water, they will regain their elasticity. This, however, applies only to such tubes as have been kept in dark rooms, and not to such as have lost their resiliency through heat or sunlight.

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Watch Dynamo.

Because an electric motor or dynamo is completely inclosed, so that it is impossible for dust and dirt to work in from the outside, it does not follow that the interior will be free from dust. On the contrary, the gradual wear of the brushes and the slower wear of the commutator produce a dust that is more or less abrasive and also is a good conductor of electricity.

Car Lock.

A piece of trace chain and a good padlock will lock your car so that it cannot be run or drawn away. Put the chain around the frame and between the spokes of the front wheel. It is also a good security for spare tires.

When the removal of a shim makes the bearing too tight for free use, a piece of Manila card board in place of the shim will often give correct adjustment, and will permit a slight tightening if needed, subsequently.

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To Clean the Hands.

To those who object to the old method of thoroughly greasing the hands in order to make subsequent cleaning easy after an overhauling job, it is recommended that a solution composed of four parts of alcohol, three parts of glycerine and three parts of water be used instead. This should be well rubbed in and the hands permitted to dry before work is commenced.

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Damaged Inner Tubes.

Inner tubes that have been damaged so severely as to make repair impossible can still give good service if cut into sections. The undamaged sections should be placed in tin boxes or cans and covered with talc. After a number of such sections have accumulated a fairly satisfactory tube can easily be made from them by joining and vulcanizing the sections. This is good work for days on which other business is slack.

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Trimming Closed Bodies.

The trimming designs of closed bodies at present aim to give as soft a cushion and back as possible. Fewer buttons are used, and the small biscuit and the pipe-and-point are seldom found on the new cars. The superseded designs no doubt kept the trimming in good order much longer, but the present effort is to secure the same soft effect in a new job as was formerly found only in a body that had seen service.

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Testing Tire Valve.

After you have finished blowing up the tire, drop a film of moisture on the valve outlet. If this moisture stays there, obviously the valve is tight, but if it disappears there is a leakage of air. In putting on the valve cap after it has been screwed tight, loosen it a little and listen to see if there is any leak. If there is, then the cap has pushed the plunger down, and the thing to do is to adjust the washer in the cap so that it does not touch the plunger, or else get a new cap.

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Use for Tire Valve Cap.

By using an ordinary tire valve cap attached to a string one can obtain enough gasoline from the tank for priming purposes. Quite often there is no drain cock on the gasoline pipe line for this purpose.

Occasionally when an engine gives symptoms of coming to a halt because of shortage of fuel, it can be induced to fire long enough to reach a supply station by violently jouncing the car on its springs —the theory being that a small quantity of fuel may remain in one part of the tank lower than the outlet to the carburetor. This is particularly true of force feed systems where the outlet projects for some little distance up from the bottom of the tank.

Life of a Car.

The life of a car is entirely in the hands of its driver. To prolong the life of the car is or should be the object of every driver, and to do this few things are so important as the proper manipulation of the clutch. A clutch should engage gradually; that is, it should not take up with a jerk; but should impart the motion of the motor to the car gradually, so that there are no undue strains upon the driving mechanism.

Care of Tires in Rain.

When driving in the rain particular care should be exercised to avoid scoring the tires. In dry weather the rubber of the tire treads is able to resist cutting, even when rolling over very sharp edges of stone, but when wet it yields far more quickly, exactly as it does to a knife blade that has been moistened. For this reason it is well to form the habit of coasting over gravel patches whenever possible, but particularly during wet weather.

Safe Fastener for Chains.

A rather long hook on the inside chain, and a small but good padlock on the outside chain, will fasten an anti-skid chain on the wheel, so that there is no danger of its coming off in use and either winding around the brake drum or being lost on the road. Releasing the padlock will allow enough slack of the inside chain so that the long hook may be unfastened.

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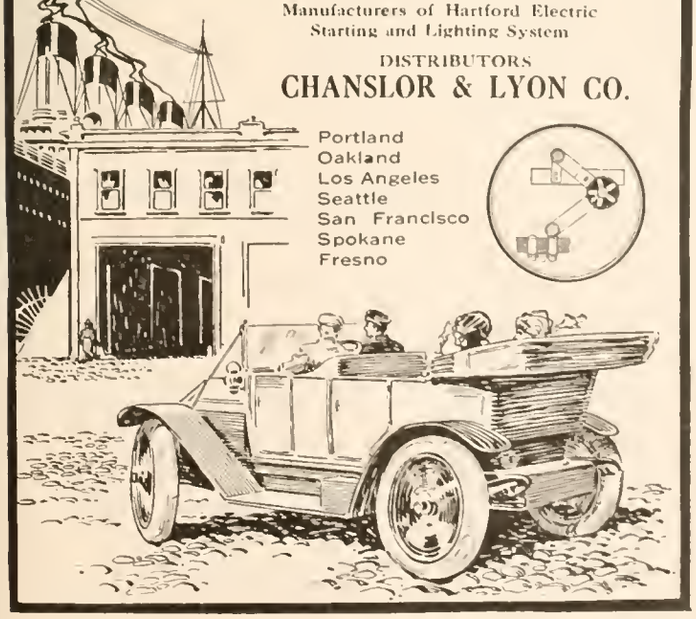

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Tips to Automobilists

(CUT THIS OUT.)

The News Letter recommends the following garages, hotels and supply houses. Tourists will do well to cut this list out and keep it as a guide:

SANTA CLARA COUNTY.

MILPITAS.—AUTO SUPPLIES. Electric welding. Complete repair shop. Expert mechanics. Spangler Brothers. Tel. San Jose 2603. R. 2.

PALO ALTO.—LARKIN'S CAFE just opened. The only strictly first class cafe on the Wishbone Route devoted to the patronage of automobile owners and their families. Corner of University avenue and The Circle.

SAN JOSE.—LAMOLLE GRILL, 36-38 North First street. The best French dinner in California, 75 cents, or a la carte. Automobile parties given particular attention.

PALO ALTO.—PALO ALTO GARAGE, 443 Emmerson St., Tel. P. A. 333. Auto livery at all hours. Tires and sundries in stock. Gasoline, oil, repairing, lathework, vulcanizing. Open day and night.

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METAL SPINNING

Good Roads Gossip

Bear Valley-Mill Creek Road.

Redlands men, who have been in conference with the new Board of Supervisors of the county, have received assurances that next summer the road from this city to Bear Valley by way of the Mill Creek will be completed. The road is finished into Barton Flats at the present time.

The personnel of the Board of Supervisors changed color entirely at the last election, when two old supervisors were defeated and the opposition came into power. There was some fear at first that the new Supervisors would not be so favorable to mountain automobile roads, but they have declared that they will do as much work on the roads into the mountains as is possible.

It is estimated that it will cost much less to build the road on into Bear Valley than it cost to build the part finished. The heavy work has been done, as the road has been taken over the divide, and it is down grade the rest of the way. The present road cost $40,000. Work on the last leg will probably start early in the spring.

The value of low grade roads that can be used by automobiles is shown at the present time. When this road is completed, it will give an easy access to the valley at all times of the year. Now the valley would be absolutely closed were it not for the road in via Victorville, a long one. It has been learned that there is much demand for a good road open in the winter as there is for good road in the summer. It would take a much heavier snow storm than usual to close the road that is now being built into the valley.

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Longest Route.

What is said to be the roughest and longest mail route in the United States is that which runs from Silver City to Mogollon, 90 miles. The postoffice department has just let the contract for carrying the mail over this route by means of motor cars.

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Chicago Speedway.

Five hundred miles will be the length of the initial motor car race over the new Chicago Speedway, it was decided at a meeting recently of the executive board of the Speedway Park Association and Clifford Island, representing the American Automobile Association. Although the date of the race was not fixed, June 19th was tentatively selected.

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Improving its Roads.

Work on the new Long Creek-Prairie City road is progressing rapidly, and when completed it will open a big part of Grant County, Oregon, which is now virtually inaccessible. This is a road for which the Grant County Court recently refused to appropriate, saying it was not desired by the citizens of either town. This contention the citizens of Prairie City met by subscribing $3,000 in three hours. Two crews of twelve men each are now working in the vicinity of Grub Creek, having completed five miles of road. Long Creek has constructed about the same amount from its end and the road will be ready for use in a short time.

Take Road Work Out of Politics.

A bill will be presented to the legislature next month which, it is hoped by those fathering it, will take the county roads out of politics and place construction and maintenance in the hands of competent engineers whose tenure of office will depend solely upon efficient work. Something like this is needed. If we are to ever have good roads, or even fairly good roads, the construction and maintenance of them must be taken out of politics. We need non-partisanship in road building.—*Chico Record.*

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——Brass work may be painted if it is first given a coat of shellac and the shellac allowed to dry before the paint is put on. Shellac will stand a much higher temperature than will paint, and if it is applied first, it will prevent the paint from peeling or chipping.

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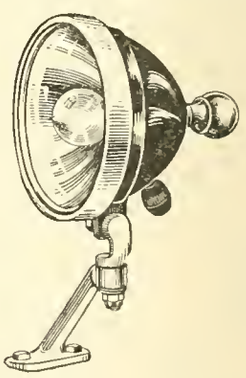

This lamp is constructed of the very finest material and will throw a light several hundred feet; can be turned in any direction and is a necessary accessory for the automobile. Can be used for looking up numbers, cross road signs, and is excellent for use in mountain travel. Furnished with Windshield or Fore-door bracket.

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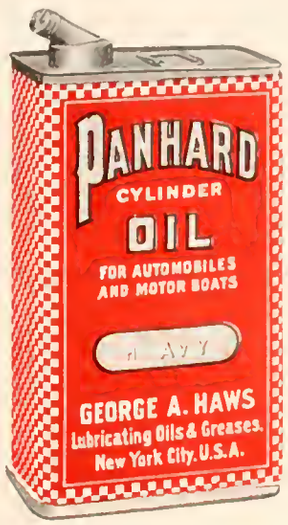

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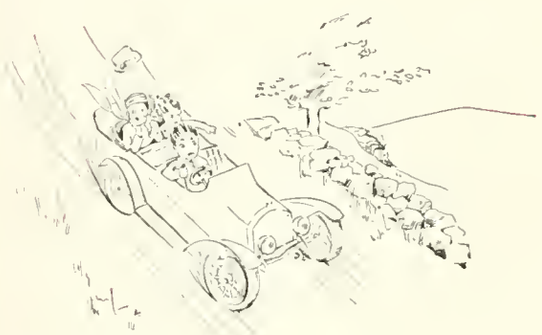
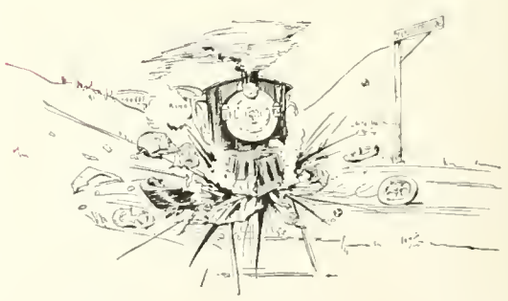
JIM JAMS AND HIS JABABOUT

Jim Jams he was a wise one
And he lived in Cherry Lane;
'Twas an awful place to get to
And a worse place to remain.
So to take his wife and fam'ly
To the village which was far
He saved his hard earned dollars
And bought a motor car.



One day as he was driving
Down the long hill by the wall
The car it gave a plunge ahead
And wouldn't stop at all.
He pushed hard on his service brake
And pulled the lever back;
But the darn thing kept a-flying
Till it reached a railroad track.

The four o'clock express was due
And round the bend it whirled,
And it took Jim Jams and family
To a better—fairer world.
Thus died poor Jim and in his fate
One fact, it will arrest us,
How needless, if he'd lined his brakes
With good old MULTIBESTOS.



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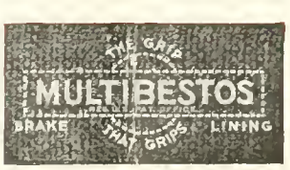

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Motoring Magazine

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PORTLAND **LOS ANGELES** **OAKLAND**

Views of the Panama-Pacific Exposition

Southern entranceway Palace of Liberal Arts

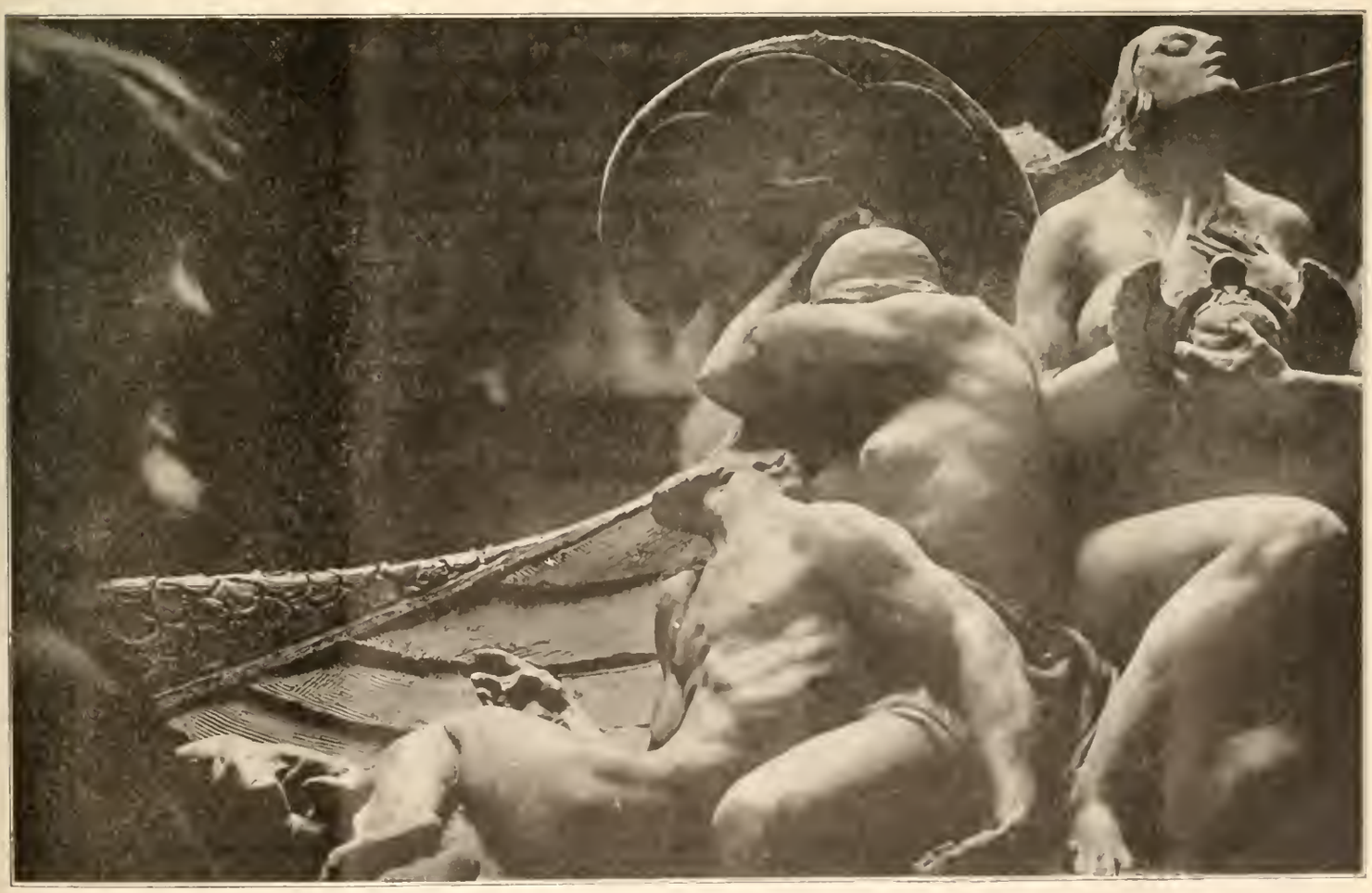
Looking into the Court of Palms

Which is the World's Greatest Fair

A Strong Grouping, Panama-Pacific Exposition.—Genius of Creation, Western Plaza facing Palace of Machinery.

Beautiful Statuary to be Seen at the Panama-Pacific Exposition

Detail of the Fountain of the Earth in Court of Abundance—Robert I. Aitken.



Detail of Fountain of the Earth, showing figures "Faith," "Sorrow" and "Sleep."

This month Motoring Magazine presents to its readers some of the racing history of those who will take part in the contest for the Vanderbilt and Grand Prix events.

It had been proposed to have at least given in this issue a most complete history of the contest for the Vanderbilt Cup this year, but the event had to be postponed on account of the weather, and the presses could not be held until the events took place.

Our next issue will be a most complete record of these two classic contests. Special arrangements have been made for special articles by some of the best known men in the automobile industry.

Our special staff of photographers will record some of the stirring scenes when these two races take place.

The general news to be found in this number will be of interest to all owners of motor cars.

Kill A Liability, Create An Asset

Use of Convict Labor Will Complete Our State Highway System and Unlock A Treasure House of Scenic Beauty

A family secret is out. Jack Neylan, of the Board of Control, let it out. He says that "Stern has gone nuts on convict labor." This classic phrase carries good news to automobiledom.

Commissioner C. F. Stern, of the California Highway Commission, has a bill before the Legislature to allow convicts to build State roads, more especially mountain roads. He believes that this is good business and sound statesmanship. He wants everybody to think as he does about the matter. Stern is contagious, and if you stop to listen to him you catch his enthusiasm.

As we are firm believers in this doctrine, and are willing to see all automobile owners "go nuts on convict labor" in road building, we print the essential paragraphs of Assembly Bill No. 547:

Extracts from Assembly Bill No. 547.

Section 1. The department of engineering of the State of California may employ, or cause to be employed, convicts confined in the State prisons in the construction, improvement and maintenance of the State highway system, provided for in the "State Highways Act," approved March 22, 1909, and in the construction, improvement and maintenance of any other State roads in California.

Section 5. The State Board of Prison Directors is hereby empowered and directed to adopt a special rule applicable solely to convicts employed as herein authorized and contemplated, whereby convicts so employed shall be granted additional good time allowance conditioned upon their loyal, obedient and efficient co-operation with the State, but such additional good time allowance shall not exceed one day for each two calendar days that the convict is absent from the prison.

Section 7. This act is hereby declared to be an urgency measure within the meaning of section 1, article IV of the Constitution, and is deemed necessary for the immediate preservation of the public peace, health and safety.

The following is a statement of the facts constituting such necessity: It is necessary for the earlier completion of the State highways now in course of construction, more particularly of those portions thereof which will render accessible the isolated sections of the State, for permitting the department of engineering to materially reduce the cost of the improvement of the same by the use of a class of labor which will not replace free labor, but will enable the department of engineering to proceed at once with extensive work which would otherwise be impossible for lack of sufficient funds, and, finally, for the prosecution of such work during the spring and summer of 1915, which, if postponed until ninety days after the final adjournment of this session of the legislature, would be delayed another year on account of the winter season in the mountains.

In a recent note, Commissioner Stern quotes competent testimony in support of his bill, as witness:

Dear Mr. Briggs:

Herewith is a copy of my Convict Labor Bill—also a brief discussion of same, which may interest you.

I have a letter to-day from Warden Tynan of the Colorado State Penitentiary, probably the best informed man in the country on this problem, in which he says: "Your bill is more liberal than ours—and thereby will get far better results than ever we have had. This is the prettiest law that was ever introduced in any legislature."

Sincerely yours,
C. F. Stern.

Reasons Why this Bill Should Pass.

Assembly Bill No. 547 authorizes the use of convict labor on State Highways.

The work is to be designated and directed by the Department of Engineering.

The convicts are to be controlled, guarded and disciplined by the Board of Prison Directors as at present.

All expense incidental to the project is payable from the fund provided for the particular road under construction.

The bill proposes to turn a definite liability of the State into a definite asset, for the solution of the mountain road problem of California, both as applied to the State Highway system provided for under the Eighteen Million Dollar Bond Act, and also the special appropriation roads of interest to all parts of California.

The funds provided for the State Highway system are sufficient only to build

Looking down over the old Mission Trail of the Padres. —Photo Arthur Spaulding.

Touring scenery to be found in Marin County across the bay.

the main trunk lines. The thousand miles of mountain laterals leading to the county seats in or east of the Sierras must be built at the expense of uncompleted portions of the main trunk line. Nor is the State justified in expending the large sum necessary to build a permanent type of tourist or commercial road through these mountains, where the population and assessed valuation to be served are so comparatively small, and where the cost of building an ideal type of road is the greatest.

The bill was drafted by Highway Commissioner Charles F. Stern as the result of a year's study of the road problems of California, and intensive study of methods and results in other States, where convict labor has been employed for road work.

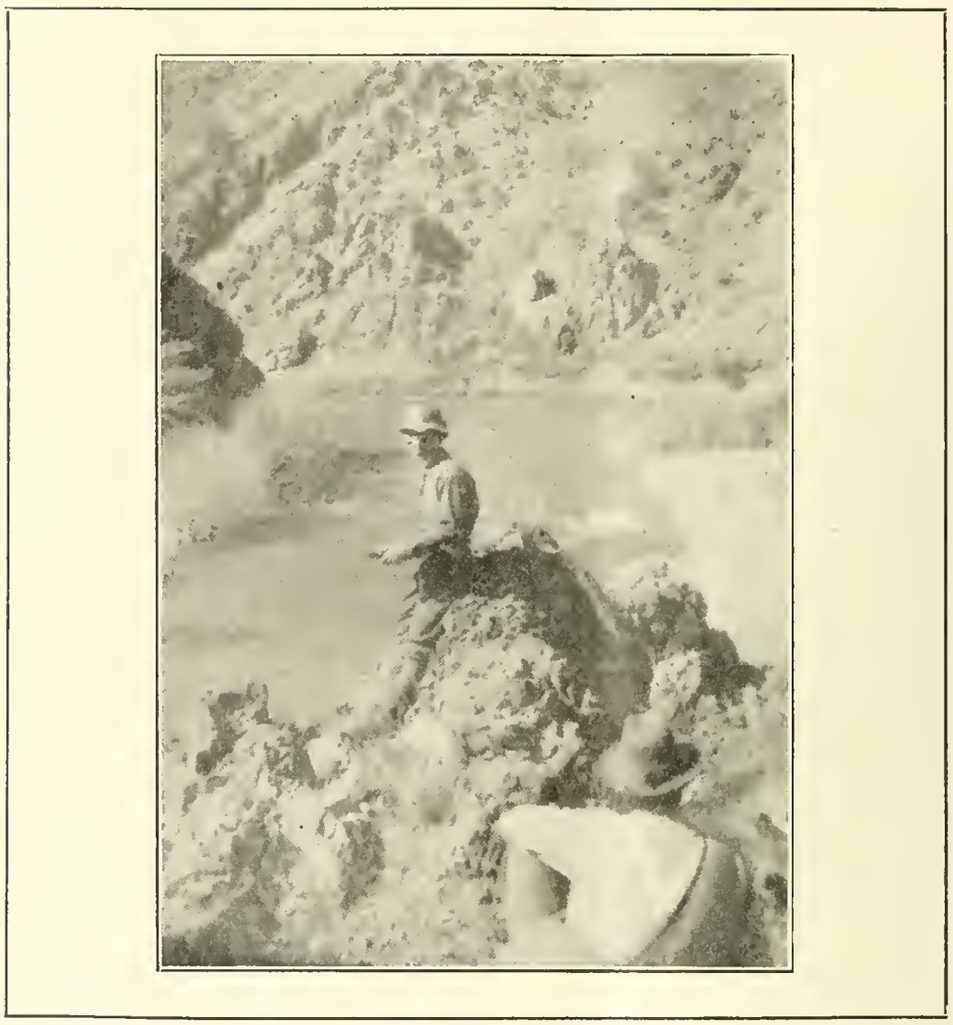
The proposition presents three aspects.

First as to the State: California is today supporting four thousand convicts as a daily liability. The economic value of such labor is definitely expressed in the experience of Colorado. We quote from the 18th biennial report of the Board of Prison Directors of this State, which is probably furthest advanced in this problem:

"Our largest item of labor performed by the convict was, of course, the road work. The prisoners . . . have built 157 miles of good roadway, and a great deal of this has been blasted out of solid rock. . . . The average labor cost for the 157 miles was $298.12 per mile. It is hard to estimate the immense value of the roads, for the reason that the work in Mesa County alone would have cost with free labor not less than $25,000 per mile, as the rock in places had to be blasted for 75 feet in order to get a proper road bed. . . . The difference between what the free labor alone would have cost the public—namely, $270,285—and what the labor of our men actually cost them, shows a labor profit of $223,479.56. However, this labor did not compete with the free labor of the State for the reason that the counties could not otherwise have afforded to do this work."

For every thousand men employed on road work under the conditions suggested a definite State liability of $600 a day can be turned into an equally definite State asset of not less than $1,500 per day. This change can be translated into many miles of road not otherwise possible, or into a higher type of road than could otherwise be contemplated.

Wherever convict labor has been tried under an intelligent plan, intelligently administered with due regard for both parties at interest, the State and the convict, the plan has been uniformly successful. The economic advantage lifts a burden from every taxpayer in the State, be he union or non-union, laborer or capitalist.



Reconnoitering along Shasta River. Commissioner Stern in center.

The effect on the convict himself is equally definite and beneficial. Constructive work instead of deteriorating grind on the rock pile or in the jute mill, better working conditions and better living conditions, and outdoor life and as large a measure of freedom as he will demonstrate his fitness for, and the tremendous incentive provided for in the bill of one day's reduction of sentence for every two days' efficient, loyal work—these things must necessarily make for the physical and mental and therefore moral betterment of the convict.

The work will be begun with a sane nucleus of trustworthy men, and developed as fast as it will justify itself. Guards will be employed insofar as necessary, but the elimination of "Gatling gun" government will be the ideal sought.

The proposal carries no antagonism to organized or other free labor. Its object is to build roads in localities and of a character which could not otherwise be contemplated by the State. It proposes to do work for which the unemployed taken from the streets of San Francisco demonstrated their unfitness and unwillingness in the Highway Commission road camp in El Dorado County last spring, as set forth in the Governor's message to this legislature. It proposes to make possible commercial roads, to open the undeveloped empire in the mountain counties east of the Sierras, to add to the assets of the State millions of acres of cheap land that needs only road transportation to become a practical solvent of the unemployed problem of California. For every job thus done by a convict which might otherwise have possibly been done by a free man, the way is opened for many free men to get back to the soil and raise the bread they are demanding of their State.

Thus the necessities of the State and the welfare and ultimate redemption of the convict are united in this solution of the problem, a solution which, without injury to any, will result in the betterment of all concerned.

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OREGON BEACH ROAD CUT.

By the action of the County Court of Tillamook County recently, and previous action taken by the Polk and Yamhill County Courts, a road to the Tillamook beaches that may be traversed from Portland in four hours by easy riding is rendered a probability before summer.

Broad turn near the grand stand of race-track at P. P. I. E., where the big auto races will be run.

THRILLS DELAYED

Vanderbilt Cup Contest Postponed Until Next Month

The lovers of automobile racing have been greatly disappointed in the Vanderbilt race this year. It was hoped that the contest would take place as scheduled, but the weather was such that it would have been folly to have started the racing cars.

The officials of the Exposition did everything in their power not to disappoint the public and the contestants, even going to the great expense of boarding over the part of the course which runs on the trotting track.

It cost some $20,000 to do this, but the first thought was to keep their promise with the public. The contest was even delayed until noon with the hope that the sun would come out, but instead it began to rain, and all hopes were abandoned.

The event was carried over until the sixth of March, and in the meantime the Grand Prix event will take place Saturday, February 27th.

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Want State to Take Over Roads

Secretary H. Guibor of the San Joaquin Auto Trades Association says:

"The automobile taxes: have you paid them? Do you know what this money is to be used for? San Joaquin County hasn't got a foot of State highway. Unless there is an awakening of automobile owners, the highways may not be taken over and no money refunded to this county for the upkeep of our good roads.

'There is a petition being circulated by the San Joaquin Auto Trades Association to be signed by every automobile owner in this county. There are only a few more days left in which to get these signers, and if you have not already signed, it is urged that you go immediately to your nearest garage anywhere in San Joaquin County and sign up.

"Last year there was over $11,000 returned to our county from license collected from automobiles. This year it may be nothing unless we have the right representation at the Legislature in Sacramento. If the State does not take over our highways and does not return us some automobile tax money to keep our highways, it will be the cause of a higher property tax next year, whereas, if the State takes over our highways they will be taken care of by the State, saving the taxpayers this expense."

The Man At The Wheel

Noted Racing Drivers Who Will Make History for the Motor Car and the World's Exposition

For daring, wonderful head-work and great skill, the driver of a racing motor car must be placed at the head of the list of expert sportsmen.

No known sport of to-day demands such quick thought, decision and action as is required of the racing driver, such as will be seen in the races for the Vanderbilt and Grand Prix cups. We present here a few words concerning the racing history of the man at the wheel.

It will be seen that of the list but two can be called veterans, and that the majority of the premiers of the road to-day are under thirty.

Louis Disbrow.

Louis Disbrow, who will be at the wheel of the Simplex car, is known as the "King of Dirt Tracks." Disbrow, who was born in New York City 33 years ago, started motor car racing in 1906, when he took part in the 24 hour contest held on the Brighton Beach track. Between 1906 and 1908 he spent most of his time in these contests. In ten weeks he was in five contests, never getting worse than third during that period. In 1908 he drove second in the Medowbrook Parkway. In 1909 the principal contest in which he took part was on the Atlanta, Ga., speedway, when he won the $10,000 trophy. In 1910 he drove third on the Long Island Motor Parkway. In 1911 he made all records from one to three hundred miles on Pebble Beach, Florida. In 1907 he took part at Savannah in the Vanderbilt and Grand Prix events. In 1912, 1913 and 1914 he followed the dirt track circuit, traveling all over the United States wherever an automobile contest was held. He has taken part in every Indianapolis speedway race. At the present time he holds 17 official records for time made on speedways, dirt tracks and beaches. His greatest success in his racing career was achieved at the wheel of the Simplex.

"Howdy" Wilcox.

H. S. Wilcox, better known as "Howdy," claims the good old automobile town of Indianapolis as his birthplace, which dates back 26 years. "Howdy" began his racing career in 1908, acting as mechanician to the celebrated Johnny Aitken. The following year he drove in his maiden event in New Orleans, and won the race. 1910 he spent driving on the Indianapolis speedway, winning a large number of racing events, and also hill climbs all over the United States, the most prominent of which was Dead Horse Hill climb at Worcester, Mass. In the same year, established the straightaway record in the mile and five mile events at Pebble Beach, Florida, which records still stand. He also took part in the Santa Monica road race. 1912, 1913 and 1914 were devoted to racing in the big events on the Indianapolis speedway. Last year he also raced at Sioux City and Elgin. The coming contest marks his first appearance with the Stutz racing team.

Gil Anderson.

Gil Anderson, who will drive the 296 cubic inch motor Stutz, was born 36 years ago in far-off Norway. He began his racing career in 1906, starting as a mechanician on the old Mathewson cars, and followed the Eastern circuit of minor events, driving and acting as mechanician until 1913, when he took up racing of the Stutz cars, winning the Elgin race and figuring prominently in all the classics from that time until date.

Eddie Pullen.

Eddie Pullen, born in Trenton, New Jersey, began his racing career in the Mercer cars, acting as mechanician with Hughey Hughes. In 1912, he drove first at Tacoma, winning his maiden race and captured second the same year in the Elgin contest. In 1913 he drove the Mercer in the Elgin contest, while he was also relief driver at the big Indianapolis speedway. In 1914, he won the Grand Prize cup at Santa Monica, making a new record for the distance, and had the honor of driving the first American car to capture this trophy. He was second in the Elgin race, losing by one mile, but, however, created at that time a new world's non-stop record. He was leading in both of the Tacoma races last year when his car went out of commission. He, however, was credited with making the fastest lap of the meet. He also acted as relief driver in the big Indianapolis speedway. He finished up his wonderful record of 1914 by setting a new world's speed mark over the Corona course of 87.89 miles per hour average for 331 miles. He lost out the racing honors for last year by the smallest of margins.

Guy Ruckstall.

Guy Ruckstall is a California production, having been born in San Francisco twenty-six years ago. Ruckstall started his racing career in 1912, taking part in "bush races" throughout the State, the most prominent contests being the winning of the big race in Bakersfield. His real racing career, however, began in the year 1914, when he drove second at the Tacoma races. He then captured with the Mercer first place in the Bakersfield and Fresno events. At the former place he set a new 25 mile record for a mile dirt track in the 301 cubic inch motor class. He was running a good second to Pullen in the Corona race when his car ran out of gasoline. He has started this year with a splendid showing over the Point Loma course, but lost out on mechanical trouble.

Louis Nikrent.

Louis Nikrent, who will drive the Baby Mercer car, was born in Detroit 31 years ago. Ten years ago he began driving racing automobiles in the East at the wheel of the Punz car. He was still racing this make up to 1906. At the beginning of 1907 he came to California, locating in Los Angeles with the old California tourist car. For two years he, with his brother, was the racing team for the California Tourist. In 1909 he took up racing the Buick, and won the 1909 road race to Phoenix, the Nikrent brothers being on the winning car. From 1909 to 1913 he "bushed it" with the Buick car, winning many light car races throughout the State. In fact, he won the light car class in 1911 and 1912 over the Santa Monica course. 1914 saw him joining the Mercer team and driving that car for the first time in the Corona race, being at the wheel of the new Baby Mercer.

Caleb Bragg.

Caleb Bragg, the millionaire amateur driver, was born in Cincinnati 28 years

ago. His racing interest dates back to 1907, when he was attending Yale College at New Haven. A number of the students formed an automobile club, and as motor car racing was a sporting feature of owners at that time, the members of the club, when club race meets were planned, would strip down their private cars for the contest. From 1907 to 1910, Bragg's racing was confined to these Yale Club events. In 1910, upon graduation, he was presented with a car, and at that time took a high-powered speedster, which he raced. In 1911, he took part in the race for the Grand Prix in Savannah, Ga., and also in the Atlanta, Ga., speedway contest. In 1912 he won the Grand Prix race at Milwaukee. In 1912-13 and 1914 he drove in the big Indianapolis speedway contest.

Earl Cooper.

Earl Cooper, who will drive a No. 8 Stutz car, has been thought by many to be a California boy, but Cooper was born in Nebraska 29 years ago, and came to the State when he was a year and a half old. To speak of Cooper means to speak of the automobile racing game of the Pacific Coast, for his first race took place in 1902, the year following the fall when the motor vehicle first made its appearance in San Francisco. In 1902 he was winning races with the single cylinder Cadillac, and kept up that sort of game through the different cities and counties in the State until 1906, when he commenced racing the Comet. In 1906 and 1907 he took part in many of the "bush" events throughout the State and coast, winning the majority. In 1908 he won the Portola race, and many other more prominent contests. This was followed up in 1910 with another string of victories, still racing the Comet. In 1911 he started in racing the Stutz car. The principal events which he won were the Fresno and Tacoma contests. In 1912 he was prominently connected with the victory and the money in the Santa Monica race, as well as first in the Tacoma. In 1913 he was declared the road race champion. Out of eight prominent events he only lost one, and that was a second. He won two Tacoma races, two Santa Monica races, two Corona races, one Fresno free-for-all, one Bakersfield free-for-all and another Fresno event. He also was relief driver at the Indianapolis speedway. In 1914 he raced in the Vanderbilt, the Grand Prix, the Tacoma, was first in the Tacoma free-for-all, and took four firsts out of six events at the Seattle meet; one the Fresno free-for-all, one the Phoenix free-for-all, and broke down three miles from the finish in the Corona when he had second place well in hand. He also was in a winning position in the big Indianapolis contest of 1914, when the car went out of commission.

Harvey Kennedy.

Kennedy, who is to be at the wheel of one of the Edward's Special cars in the Vanderbilt and Grand Prix races, was born in San Francisco 27 years ago. He first raced at Santa Monica in 1909; then in Redlands Hill climb, and various track meets through the Pacific Coast, including San Diego and Corona up to 1910. He defeated Burman on the Emeryville track, and raced against the noted driver at Madison Park, Seattle, and other meets throughout the Northwest. In 1913 he was a member of the Benz racing team that campaigned through the United States, staying with them until the latter part of last year.

Louis Gandy.

Louis Gandy, who raced one of the other Edward's Special, was born in Virginia in 1880. He has had charge of the Stevens-Duryea racing cars that took part in the Portola races in Alameda County, and also acted as relief driver in the big event at Del Monte. At one time he held and made the record for fast driving around the bay. He also drove the Sunset in the track meets on the Tantoran course, as well as at Santa Rosa. He was one of the designers of the Sunset car, and is the designer of the Edward's Special, as well as builder.

Tom McKelvy.

McKelvy, of Fresno, who will drive the Overland car in the Vanderbilt and Grand Prix races, was born in Farmington, Minnesota, December 20, 1885. He came to California in 1900, when quite a boy, with his father, and settled on a farm near Fresno. He has always been mechanically minded. In 1907 he associated himself with the Cobb Evans Automobile Company at Fresno, agents for the Overland car, and has been connected with that company ever since. In 1912 he was continually asked the question by prospective buyers why the Overland did not race their cars, and as the Overland had not been identified with the racing business he was compelled to tune up an Overland car.

In April, 1912, he entered this Overland car racer in the 200 mile road race at Fresno, and won the light car race and second place in the free-for-all. In June of the same year he lowered the Toll House Hill climb record by 2 minutes and 2 seconds. This is considered the longest and steepest hill climb in the country, 7½ miles long.

He also holds the record in the high hill climb at Coalinga, Fresno County, with his Overland. On New Year's day in 1913 he won the 150 mile race at Lindsay, Tulare County. On September 28th and 29th he won three races on the Bakersfield track.

October 3d of the same year he won the light car race on the Fresno track. July 4 1914, he won the 150 mile race at Visalia. In 1914 he won the 25 mile race on the Fresno track. He is considered one of the most conservative and level headed racing drivers on the coast.

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Long Wear in Gravel Roads

Well constructed gravel roads will sometimes sustain years of traffic without showing marked deterioration, even when there has been no maintenance. Such roads sometimes even improve during the second season; more frequently, however, they show ruts or the formation of chuck holes. It cannot be expected that the average life of a gravel surface will be greater than that of a macadam surface.

The average interval for resurfacing macadam roads is between six and seven years. If a sum equal to two-thirds of the original cost of the gravel surface itself is provided for renewals at six-year intervals, it should be estimated at from $150 to $250 per mile per year. If $30 is then allowed for annual dragging and small repairs, the total annual cost of repair and maintenance of gravel roads would be from $180 to $280 per mile. The annual cost of strict maintenance is sometimes below $30.

In Bennington County, Vt., during 1912 175 miles of gravel roads were maintained at a cost of $20.70 per mile. The annual cost of maintenance and repair on sand-clay roads, including all necessary resurfacing at periodic intervals, should not be fixed at less than 10 per cent of the original cost.

The cost and repair and maintenance of water bound macadam roads has been determined with some considerable exactness from Massachusetts figures and checked by resurfacing charges in other States and in Germany. From $100 to $125 per year ordinarily pays for necessary small repairs, such as patching, cleaning culverts, etc., and from $400 to $425 per year is the necessary annual charge for resurfacing at periods varying from six to seven years.

The sum of $525 per mile, on an average, should therefore absolutely maintain macadam roads if changes and increases of traffic are not excessive. It must be understood, however, that in many instances where macadam sufficed for the volume and character of traffic prior to 1906, it will not withstand the action of the motor vehicle traffic, which has developed since that time.

The Unknown Hero of the Race

The Mechanician Who Sits in the Seat of the Lowly is the Man Who Spells Success

The mechanician may be said to sit in the seat of the lowly. The honor, the glory, the laurel wreath, the golden trophies, and not to mention the sack of double eagles, are generally handed to the winning driver and the car.

But from these mechanicians of to-day come generally the championship drivers of to-morrow. It is he who must watch the car, the tires, the lubrication, and everything about the mechanical monster that is annihilating time and space under the guidance of the driver.

It is he who constantly watches road conditions, must warn the oncoming car, and practically is responsible for everything except the course and speed the car takes.

His judgment in the racing motor car of to-day must be at least as great as that of the man at the wheel, and while he has heretofore been overlooked, Motoring Magazine wishes to place him on record, and in its humble way give him his just dues.

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John Jepsen.

John Jepsen comes from Denmark, and is 25 years old; he has for the last two years been Ruckstall's mechanician. Jepsen has ridden with Ruckstall in the San Diego, Corona, Bakersfield and Fresno races, and in fact has ridden with Ruckstall in every race except the one in Tacoma when Joe Thomas helped out.

Joe Thomas.

Joe Thomas, rider as mechanician with Eddie Pullen in the world's speed record Mercer, is a Seattle boy, 26 years old. Thomas has been in the racing game since 1908, and has made a reputation of his own as a driver, being known as the "Speed King of the Northwest." He began his racing career in 1908, winning two events in Yakima. In 1909 he drove in the races at Cohasset Beach, Washington. In 1910 he continued his winnings at Yakima, Tacoma. In 1911, his principal races were in Yakima, Tacoma and Vancouver, besides a number of minor racing events in the Northwest. 1912 saw him driving in the same events and in the same territory. In 1913 he made quite a reputation driving at Tacoma, Vancouver and on the Portland speedway. In 1913 and 1914 he won the P. I. reliability tour. In 1914 he drove in one of the Tacoma races, and rode as mechanician with Guy Ruckstall. Later he joined Pullen, and was with him when he broke the world's record at Corona.

F. A. Schultz.

F. A. Schultz, who will ride with Louis Nikrent in the Baby Mercer, was born in Trenton, 24 years ago, and has come up as one of the experts in the Mercer factory in his home town. Schultz has been relief mechanician on the Mercer racing team in 1913 and 1914. This is his first year as a regular member of a crew.

C. Quicksell.

C. Quicksell, who is to act as mechanician for Caleb Bragg, a Trenton boy 38 years old, has been with the Mercer people as factory expert for several years, and has acted always as one of the mechanicians. This, however, is the first time that he has been a member of a regular driving crew, and comes West to act for the noted millionaire driver.

R. Dutton.

R. Dutton, who will act as mechanician with Earl Cooper, was born in Rochester, N. Y., 27 years ago. In the early part of last year he joined Cooper as mechanician in the races at Tacoma, and since that time has been the assistant to this well known California driver.

Dave Louis.

Dave N. Lewis is a Native Son, having been born in Los Angeles 34 years ago, and will be mechanician for Howard Wilcox. Between 1902 and 1905 he acted as driver and mechanician in the White steam car racing team. Between 1905 and 1910 he was out of the game, but returned at the latter date and joined Teddy Tetzlaff, with whom he rode until the beginning of 1912, when he joined the Stutz combination. His most prominent event in that year was in the race held over the Santa Monica course. In 1913 he went East and drove all summer on the Brighton Beach course, where he won the title of the "Race King of Brighton Beach." In 1914, he drove 120 h. p. F. I. A. T. in the Corona race, and came back this year to join the Stutz team as Wilcox's partner.

Jack Rooney.

J. A. Rooney, who will act as Gil Anderson's mechanician on the Stutz car, was born in Waltham, Mass., 32 years ago. He began as a mechanician in 1909, and in 1910 and 1911 was with Frank Lee when he was driving the fast Alco car. In 1912 he was in the light-class contest at the Milwaukee meet. In 1913 he joined the Stutz racing team, and since that date has been racing with Gil. Anderson.

Walter McHenry.

McHenry, who will ride with Louis Disbrow in his Simplex as mechanician, has acted in the same capacity for Teddy Tetzlaff in 1912. He has also been at the wheel of racing cars in some of the prominent contests held in Honolulu.

"Bob" Hopkins.

Robert S. Hopkins, who will act as mechanician on the Edward's Special, is 36 years old, being born in Brockville, Ontario, Canada. Hopkins has been an expert mechanic, but this is the first time that he has ridden in the extra seat in a racing car.

Harry Rose.

Harry Rose, who will be with Kennedy in the Edward's Special, was born in San Francisco, 24 years ago. He has been riding with Kennedy in the Santa Monica races, the Tacoma speedway, and other events, as well as in the Portola and Panama races over the Oakland,-Haywards course. In some of the coast races he has been mechanician for Teddy Tetzlaff. He has signed up to follow the Edward's Special through its racing program for 1915, a car which he has built.

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——The famous Yellowstone Trail was put on the map of Portland for all time recently by A. L. Love, of Bozeman, Mont., who made a speech before the Portland Automobile Dealers' Association at the Commercial Club. "The Yellowstone Trail has been blazoned from St. Paul to Montana already, and yellow guide signs are plastered intermittently, in some places on every telephone pole. Arrangements already have been made to extend the highway and post the Trail signs as far as Spokane."

Some of the Cars that will Race at The Exposition

Speed Burners that will Make Motor Car History of the World

Motor car racing, especially in classic events, has horse racing "beat a mile" for uncertainty. Form plays a most prominent part in the latter, while with the former the element of luck is so prominent that past performances do not furnish enough material to absolutely make the picking of a winner possible.

There are four elements to be considered in the victory of a motor car contest: the car, the driver, the mechanician, and last, but not least, luck.

We here give the history of the cars, the driver and the mechanician in the coming races:

"Californian."

The "Californian," to be driven by Caleb Bragg, is a new creation making its bow in the racing game for the first time in the Vanderbilt and Grand Prix races on the Panama-Pacific International Exposition course.

Simplex.

The Simplex, to be driven by Louis Disbrow, is a car especially built for the Vanderbilt and Grand Prix contests this year. It has a stock 50 h. p. motor, $5\frac{3}{8}$ bore by $6\frac{1}{2}$ inch stroke. The factory officials had been contemplating the use of a special 75 h. p. motor, but found the new 50 h. p. stock motor so powerful that they decided to use it. This car showed 110 miles per hour on the Long Island Motor Parkway. The Simplex factory re-entered the racing game after an absence of five years. During this period, Disbrow used a Simplex for track work and captured over 43 events. The Simplex racing history includes several victories in the early 24 hour contests, the Lowell race, El Paso to Phoenix road contest, match race between the Simplex and F. I. A. T., Cyclone and several other very prominent racing contests.

The Overland Entry.

The Overland entry, which is entered in the Vanderbilt and Grand Prix races, is a regular stock car tuned up by the driver, Thomas McKelvy, of Fresno. McKelvy in 1912 stripped this car down for racing, and from that date has raced it in all the prominent races and hill climbs of San Joaquin Valley. It has captured many of the local events.

Mercer Grand Prix Winner.

The Mercer, to be driven by Ruckstall, last year won the Grand Prize International cup with Eddie Pullen at the wheel. It created a new record at the contest both in America and Europe, covering the 403 miles with an average of 77.22 miles per hour. This is the first American car to ever capture this International trophy. It was in second place with one mile to go, with Ruckstall at the wheel in the big Corona contest, when it ran out of gasoline. It was fourth at San Diego when stopped on account of mechanical trouble.

Baby Mercer.

The 298 cubic inch motor Mercer that is to be driven by Nikrent, is the car which Eddie Pullen drove into second place at the Elgin contest and created a new non-stop record up to that time.

Baby Stutz.

Among the Stutz racing cars this season is one which is known as the 290 cubic inch motor racer. It is one of the mysteries of the Vanderbilt and Grand Prix contests. It has only been run into the freight cars and off again in San Francisco since it was built, to be given its maiden race in the Blue Ribbon contest. The car is to be driven by Gil Anderson.

Stutz.

The other member of the Stutz stable, formerly driven by Gil Anderson, will be guided by "Howdy" Wilcox. Its first start was in 1914 in the Indianapolis speedway big event. From there it was raced in Sioux City, and then took second place in the Elgin race, losing the honors by 44 seconds.

Cooper's Stutz.

Of the other Stutz warriors, Earl Cooper's No. 8 made its initial bow to the public last year in the Indianapolis speedway contest. After this event, Cooper brought it West, and won the free-for-all in Fresno and Phoenix. Cooper then raced it in the Corona contest, and had second place well in hand when he went out of the contest for minor trouble. The car has celebrated the 1915 racing season by winning the San Diego road race with Cooper at the wheel.

Edward's Special.

Edward's car is one of the smallest in the Vanderbilt and Grand Prix races, being under the 300 cubic inch motor displacement. This will be the first time that this model has been raced in public.

Mercer Record Holder.

The Mercer speed record holder, to be driven by Pullen, made its initial bow last year. It took second in the Sioux City meet, and was leading in both the Elgin races at the time, being driven by Spencer Wishart, when put out of the contest by an accident. Its next appearance was at the historical contest over the Corona course, when Pullen created a new record of 87.89 miles per hour for the course of 301 miles.

Good Roads Club at Bakersfield

"If plans formulated by the Inyo Good Roads Club are carried through, Bakersfield will be the terminus of the Midland transcontinental road which will here connect with the State Highway to Los Angeles," says the Bakersfield correspondent of the Los Angeles Times.

"In a letter, G. W. Scott, secretary of the Inyo Good Roads Club, urging support of the project, outlines the proposed route as follows:

"The Midland Trail, running from New York through Philadelphia, Pittsburgh, Columbus, Indianapolis, St. Louis, Kansas City, Denver, Grand Junction, Green River, Salt Lake City, Ely, Tonopah and Goldfield, enters California at the center of its eastern boundary.

"The first town reached after crossing the State border is Big Pine, Inyo County. Here the motorist will have the choice of two routes. One extends north, via Bishop, Mammoth and Bridgeport to Tahoe, from which points the way to San Francisco would be through Sacramento.

"The other route follows the beautiful El Camino Sierra through Independence and Lone Pine to Freemans, where it cuts through Walkers Pass, and joins the State Highway at this city. The northern branch would be open only in summer, and the remainder of the year all travelers on the great Midland trail would pass through Bakersfield."

How The Vanderbilt and Grand Prix Races Were Secured

William L. Hughson Has Put San Francisco on the Motor Car Racing Map

San Francisco thinks, eats, drinks and lives nothing but automobile racing at the present time. The fact that for the first time in the history of the Vanderbilt and Grand Prix cups these trophies, the most important in the automobile history of the world, will be contested in this city, has turned aside the thoughts of the man of the West from other pleasures and the more serious thoughts of business.

These races will be fitting to mark the early days of what has been acknowledged to be the greatest exposition the world has ever known, and while many felt that, considering the importance of the occasion it would be nothing but natural that those who control the destinies of these cups should have granted this city the privilege of holding the contests, they were not secured without a struggle.

San Francisco has never been badly "bitten" by the motor racing bug, and contests of this kind have never been profitable. Southern California has spent thousands and thousands of dollars in advancing the interest in this sport, and this section of the State, with its just claims, came very near securing the contest for 1915.

That this city will hold these events has only been made possible through the public enthusiasm of Wm. L. Hughson, for years identified with the automobile industry on the coast.

While East in January, 1914, Hughson took up the subject of securing these classics for San Francisco for 1915 with Fred J. Wagner, the famous starter. At that time plans were formulated to ask the Motor Cups Holding Committee to award its sanction, providing it would be satisfactory to the A. A. A. officials and the drivers.

On returning to San Francisco in February it was suggested by a member of the Press that it would be a splendid idea to have the races here. The scheme was taken up with the Motor Car Dealers' Association, and they were very enthusiastic, agreeing to give their support and electing Hughson chairman of the committee to secure these events.

In order to find out what the feeling amongst the drives might be, Hughson made a trip to Los Angeles and interviewed them after the Vanderbilt and Grand Prix was held at Santa Monica.

Hughson made the trip, and while there found that San Francisco was going to have strong opposition from Los Angeles. So thinking to harmonize matters, he suggested to the Los Angeles committee that they should ask for the Grand Prix race and we would ask for the Vanderbilt.

Returning to San Francisco with Wagner and some of the drivers, Hughson went over the situation, and it was decided to select a course through Golden Gate Park. Then it occurred to him that it would be a splendid drawing card to hold it in the Exposition grounds if possible. The matter was taken up with Hollis E. Cooley, chief of Special Events, who was very enthusiastic. He presented the matter before the Exposition officials, who were finally induced to join the Motor Car Dealers' Association to promote the races.

The next step was to secure the sanction of the Motor Cups Holding Committee. After an exchange of a number of telegrams, it was found necessary that some one should go East to attend a conference on April 23d.

Hughson was appointed to make the trip, accompanied by Hollis E. Cooley. On arriving, much to their surprise they found the meeting had been postponed for one month—at the request of certain San Francisco people, who wished to hold the events for personal gains. When it was explained to W. K. Vanderbilt, Jr., he most kindly had H. P. Anderson, secretary of the Motor Cups Holding Committee, set the date of the meeting ten days later, giving all who had applications in, time to arrive.

Vanderbilt assured Hughson that he was in favor of giving the events to the Exposition, and when the meeting finally took place, he showed his loyalty by inducing the rest of the committee to not only give us the Vanderbilt but also the Grand Prix event.

In order to do this, it was necessary for the committee to change the distance from 8 miles to approximately 4 miles, which was as long a course as was possible inside the Exposition grounds. This is the first of these races that was ever attempted on an enclosed course, and the result will be eagerly awaited with interest.

It has been customary to have these events starting at daylight, so as to have clear roads and avoid accidents, as they were run over public highways. Those who have been fortunate to attend the events in the East will remember well leaving New York in the middle of the night in order to secure good locations and be on hand for the start.

Now the Exposition will give this Coast a chance to see these two big events comfortably and safely, having the United States Government troops to patrol the course.

Grand stands with seating capacity for 75,000, protected by heavy wire netting and steel rails three feet from the course, will give absolute protection.

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Shot the Tire

Officer C. R. Fisher had an experience recently with a speed violator that will be remembered by the fast driver for some time. When Fisher called him to halt, the man stopped the machine and quickly jumped out of the car, thinking something was wrong with his machine, and when told that he had violated the speed law and was under arrest, the man became angry and stated that he would not accompany the officer to Lodi; then jumped into the car, which was a self-starter and tried to run away from the officer, who quickly drew his gun and shot a hole in the rear tire, after which it was no trouble to catch the man again, and the penitent one then offered no resistance to accompanying the officer to Stockton, where he appeared before Justice Parker.

The automobilist, who happened to be Edward L. da Roza, a winery and vineyard man residing at Galt, was brought before Justice Parker. He was released on depositing $50 cash bail, and his trial was set for a later date.

Mr. Dickie of the Automobile Club of Northern California Suggests Simple Formula

A. C. Briggs, Esq.,
Sec'y Automobile Club of Northern Cal.
Mills Building, San Francisco, Cal.

Dear Mr. Briggs:

I enclose an article on the subject of an automobile formula which is based on pure science, combined with practical experience in testing gas engines, and which I believe will be fair to the automobile owner, while at the same time placing a premium on brains and honest effort of the automobile manufacturers.

Trusting that the enclosed will be satisfactory, I beg to remain,

Yours very truly,
David W. Dickie.

Formula

$$\frac{\text{Bore} \times \text{Bore} \times \text{Stroke} \times \text{No. Cylinders}}{10}$$

On account of the agitation caused by the apparent injustice of the present automobile formula used by the engineering department of the State of California, the writer begs to offer the above as the solution of the problem.

As an example take the case of a Pope 4-cylinder 1912, 50 h. p. $4\frac{3}{4}$ bore x $5\frac{1}{2}$ stroke, the State formula gives the following:

Bore -i- Stroke x Bore x No. Cylinders x .224 $=4\frac{3}{4}$ -i- $5\frac{1}{2}$ x $4\frac{3}{4}$ x 4 x .224 $=$ 43.624 horsepower.

Then take the Pierce Arrow 1911 six-cylinder 36 h. p. 4 Bore x $5\frac{1}{8}$ Stroke, the State formula gives the following:

4 -i- $5\frac{1}{8}$ x 4 x 6 x .224—49.05 h. p.

It will be noted that the cubic inches of space in the cylinders in the case of the Pope is 389.864, while in the case of the Pierce-Arrow it is only 386.406, while at the same time the formula gives a horsepower for the Pierce-Arrow 5.426 greater, a manifest injustice.

We will not discuss the question of making the tax in proportion to the horsepower beyond saying that the intervals between the horsepower ratings which is used as a basis for the tax appear to the writer to be altogether too great.

The formula suggested by the writer is based on the one used by the steam engineering profession for arriving at the horsepower of steam engines, and has been thoroughly tried out in practice and found correct. The only difference is that he has simplified it so it could be used by one not having an engineering training. It is as follows:

$$\frac{P \times L \times A \times R \times N}{2 \times 33000} = \text{Horsepower}$$

The meanings of the letters follow:

P—Mean effective pressure of the explosion of the gas in the cylinder.

L—The length of the stroke.

A—Area of the cylinder—Bore x Bore x .7854.

R—Revolutions of the motor.

N—Number of cylinders.

2—Factor caused by the fact that an explosion occurs in the cylinder on alternate revolutions only.

33000—Number of foot pounds of work in a horsepower.

For the Pope engine the formula works out as follows: where the mean effective pressure is taken as six to correspond with the other condition of taking the stroke in inches instead of feet which the engineering profession does.

$$\frac{6 \times 5\frac{1}{2} \times 4\frac{3}{4} \times 4\frac{3}{4} \times .7854 \times 1500 \times 4}{2 \times 33000} = 53.1617 \text{ horsepower}$$

For the Pierce-Arrow the formula would be as follows:

$$\frac{6 \times 5\frac{1}{8} \times 4 \times 4 \times .7854 \times 1500 \times 6}{2 \times 33000} = 52.6932 \text{ h. p.}$$

It will be seen in the above formulas that the revolutions are taken as 1500 in each case, and as the revolutions of an automobile engine vary considerably, this is a fair average upon which to base our calculations.

Let us assemble some of the factors of the formula and it automatically simplifies itself as follows:

By taking out the number

$$\frac{6 \times 1500 \times .7854}{2 \times 33000} = .1071$$

the formula takes the form

$$\frac{\text{Bore} \times \text{Bore} \times \text{Stroke} \times \text{No. Cyl.} \times .1071}{10}$$

The number .1071 can be taken as 1-10, which is near enough for all practical purposes, and by doing this the formula takes the form

$$\frac{\text{Bore} \times \text{Bore} \times \text{Stroke} \times \text{No. Cylinders}}{10}$$

While the formula does not agree with the manufacturer's ratings of the above machines, it does give a horsepower which closely represents the true horsepower which the owner is paying for when he buys the machine, and the pardonable pride on the one hand or the modesty of another manufacturer should have nothing to do with the tax rate which the automobile owner should have to pay.

If the ratings were based on the next lowest horsepower to that given by the formula, each owner would be paying in direct proportion to the amount of service which he gets out of his machine, assuming of course that the elegance of fine equipment gives the owner either service or pleasure in proportion to the amount of power which his machine actually has.

It is also true that, with a given bore and stroke, it is possible by superior design and close attention to refinement in minute detail for one man to get more power than another out of the same dimensions, and accordingly the formula suggested acts as an incentive for a high grade man to aim at high efficiency.

The present method of rating with such large intervals leaves an opening for a manufacturer to make a lower grade article and advertise it as being better than it is, without there being any public display of the fact.

Anybody familiar with the subject knows that in some of the lower priced cars that just come under 30 h. p. the hill climbing and speed possibilities are greater than some of the better priced cars rating 20 h. p. higher according to the State formula, a difference that does not look to be just, and does not appear to the writer to be necessary when the matter can be adjusted so simply.

David W. Dickie.

To Beautify Roads

A method by which streets and boulevards in cities may be beautified despite the backwardness of property owners is provided in a bill introduced in the Senate by Thompson of Los Angeles.

The bill gives the city council or board of supervisors the power to decide what streets shall be beautified by the planting of trees, flowers and grass along the parkways, and that this work may be carried out by the city at the expense of the property benefited. A special tax assessment is provided. This work is to be under supervision of the superintendent of parks.

THE ASSET OF MANKIND

Road Information That Tells of the Coming Prosperity to Sections Being Improved

Orange County Building Good Highway.

When Orange County builds its coast boulevard from Seal Beach to Serra there will be opened to those who travel by automobile a wonderful drive through sand dunes and summer resorts, beside broad beaches and the still waters of bays, on the crests of bluffs and across promontories that reach out into the shimmering sea, along a short line where breakers forever roll in to lash themselves into foam.

When that road is finished a motorist may stand for a drive that will take him from Los Angeles through Long Beach to the Orange County line at Alamitos Bay. Seal Beach, Sunset Beach, Huntington Beach, Newport Beach, Corona del Mar, Laguna Beach, Arch Beach and Serra—these are the points along the Orange County coast that he will see.

On the return trip he may journey by the inland route on the State highway, by way of the pleasant mission valley of San Juan Capistrano, the rolling hills of El Toro, the vast bean fields of Irvine, the splendid tree-lined drives of Tustin, the orchards of Santa Ana, Anaheim, Fullerton and La Habra, into the Whittier country.

As yet, the coast boulevard can be designated as a project and a certainty. While there is a movement afoot to hasten the realization of the plans, still it may not bring about the early construction of the road.

However, the Orange County Board of Supervisors is committed to the plan of building the road. In fact, the county has already started the work. A bridge has been built at Anaheim Bay, and a paved road has been constructed between Seal Beach and Sunset Beach.

Orange County has almost finished the construction of 107 miles of good roads provided for in the original plans under which $1,270,000 bonds were issued, and the County Highway Commission and the Board of Supervisors have been considering the disposal of some $240,000 that remains in the highway fund.

The determination and spirit with which the boosters for the coast boulevard are handling their project can be surmised from the fact that they offered to raise by subscription $100,000 to put with $160,000 of the county's money to build the coast boulevard clear through from Seal Beach to Serra, which is located on the beach three miles below San Juan Capistrano.

W. T. Newland of Huntington Beach, a county highway commissioner, recommended to the Board of Supervisors that $500,000 additional bonds be voted so that interior roads that are petitioned for and the coast boulevard can both be built within the next year. Newland's scheme proposes dividing the coast road off into sections, as follows: Seal Beach to Huntington Beach, six miles; Huntington Beach to Newport Beach, 2.20 miles; Newport avenue to Corona del Mar, four miles; Corona del Mar to Laguna Beach, eight miles; Laguna Beach to Serra, nine miles.

At the present time each of the beach towns has a paved road reaching from the town inland. It is proposed by the coast boulevard to unite the ends of these roads with one that will not only give easy access from one city to another, but will provide a coast automobile trip the like of which is not to be found anywhere on this coast.

Variety will be a feature. When one has felt the charm of the beaches along the lowlands, where threads of tidewater reach back into ponds and deep boating channels, he will pass on to the rougher, more picturesque attractions of the rugged coast below Newport Bay.

Newport Bay itself is a bigger and more beautiful bay than is generally realized. Its charms and beauty will be best seen from the boulevard that is to be built.

The coast road from Seal Beach to Newport Beach, most of the way would parallel the Pacific Electric.

From Newport Bay to Laguna Beach is a stretch of coast across the property of the Irvine Company not now open to travel by vehicles of any kind. Private roads used by grain and bean growers indicate the feasibility of road building at no great expense.

From Laguna Beach, which is joined to the State Highway at Irvine by a paved road that traverses beautiful Laguna Canyon, adored by artists and others who cannot paint but who can look out upon nature and be thrilled, to Serra, a good dirt road is already in use. While the State road is being built between Irvine and Serra many automobilists journeying to San Diego turn off at Irvine, go to Laguna Beach and follow the coast down to Serra.

All along this coast line the hills and mesas come down by the water. Jutting into the blue depths of the ocean are points of rocks. Between the points are coves with sandy beaches.

The glittering sea, the pounding of the waters, the deep moss grown tide channels, the magnificent views from promontories and bluffs, the setting of the sun in wonderfully beautiful skies, these are some of the things that some day Orange County is going to make easy of access to all Southern California.

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San Ardo Wants Road.

For the past two or three years, especially since the inauguration of the proposed State highways, there has been considerable agitation relative to a "valley-to-coast" highway to connect the San Joaquin Valley at Coalinga with this valley at King City or San Lucas. San Ardo has awakened to the fact that such a connecting highway would be very advantageous to her prosperity, and she is now competing with her two sister towns, King and San Lucas, to become the connecting point in Salinas Valley.

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To Close Unused Roads.

Any freeholders, providing two are residents of a given road district, may be able to abolish or discontinue the use of any public highway providing the same is proven unnecessary for public use by filing a petition with the Board of Supervisors if a bill introduced by Senator Breed of Oakland becomes a law. The bill provides that following the filing of such a petition the Board of Supervisors shall call a hearing, and if it is decided that the highway is not needed will order it vacated, the property in which case will revert to its former owners free of any public easement.

An Era of Good Roads.

California has entered fully on a good roads era. The State Highway forms the main artery in one of the best systems of good roads in the West, if not in the Union.

The various counties through which this passes, have enthusiastically joined in the good work, and we have, radiating from it, county roads, many of almost equal excellence, reaching into interior points of such counties.

This great work will be continued, having once been well started, until every remote portion of our State will be within reach, through most excellent roads, available summer and winter.

Two great causes have contributed largely to this improvement in our highways: First, the demands of the automobile; secondly, the great exposition.

The open winters of California and her glorious summers made the automobile more available in California than in other States, and there has been a much larger per centage of these machines purchased here than in any other State in the Union. This gave rise to the urgent demand for better roads and the agitation, once started, grew in intensity until the demands were filled.

The prospective influx of visitors during this exposition year put us on our mettle and spurred us to quicker action. We shall have tens of thousands of visitors here during the year and we do not want them to go away with a bad opinion of California enterprise. So we have made them excellent roads to travel over which they come.

A third, the most important object of all, but which would never have had any effect but for the others, is the opening of our markets to the producers. This, after all, will be the greatest benefit which our good roads will bestow upon the State.

Our farmers are now enabled to reach the markets with their products at any time of the year, at least from such sections as the improved roads reach, and they can take advantage of the demand for products as they never could, where the roads are impassable from mud and storms for several months in the year.

Good roads are advantageous to the automobilist, a pleasure to the visitor, but they will prove of the greatest pecuniary benefit to the farmer after all.

Some framers have got them and appreciate them, all others will have them and it will not be many years before there will be few places so remote that they will not be within easy reach of the traveler the year around, or over which the farmer will not be able to reach his market at any time he may choose to go.—*Stockton Record.*

Tulare County and its Roads.

That construction work on the State Highway through Tulare County should begin as soon as is consistent, but that the present routing should be changed to go by way of Mooney Grove, was the sense of the delegates at the meeting of the Tulare County Highway Association held here recently.

The sentiment of the meeting in this regard was opened by a motion by W. P. Boone of Dinuba to the effect that if the supervisors could get together on a routing acceptable to the State Highway Commission that they present that routing, and an agreement to finance the bonds and build the bridges along that route.

The arguments on the highway situation were widely varied from the contention of Senator Larkins, who thought that the roads should be built by direct tax, each supervisorial district spending $150,000 per year on better roads for their sections, to the suggestion of W. B. Nichols of Dinuba that the certain parts of the country wanting good roads and willing to build them get together, formulate a special road district and go to bat with the proposition again. Others favored county unity and said the best thing was to hold the entire county together and get good roads for the whole county.

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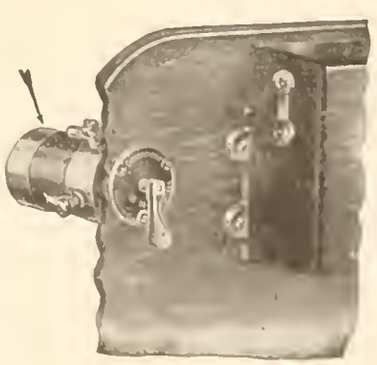

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From Here, There and Everywhere

Items of Interest Gathered From Motoring Centers of the World

Paris 'Buses Before the War.

"Your numbers, messieurs!" yells the conductor, as a Parisian auto 'bus charges up to the curb.

And a throng of prospective passengers jostle about his platform, flourishing small tickets of colored paper. "Forty-seven!" he calls, reading off the number of the lowest ticket offered him. "Forty-eight, forty-nine, fifty!" he continues—"and that'll be all!"

A jerk of the bell cord, and off darts the loaded 'bus.

This scene is bewildering at first to the foreigner, yet it really manifests the detailed efficiency of the wonderful Paris auto 'bus service, a service of urban transportation which until the war demoralized it was next to London's, the finest in the world.

The Paris 'buses stop only at certain fixed points. Here, in an ornamental shelter house, or attached to an arc-lamp post, is a small case of numbered paper tabs, much like the pad of soda checks at a drug store fountain.

Each would be passenger, as soon as he reaches the stop, tears off the top number, and when the 'bus arrives, the conductor lets the waiting people on in the order of the numbers which they hold, showing the order of their arrival at the stop.

The Paris auto 'buses carry thirty-two or thirty-four passengers each. The last available figures showed over one thousand of these 'buses in Paris, running on nearly two hundred miles of streets.

The passenger on a Paris auto 'bus can ride in all the luxury of a private limousine, if he chooses to pay a "high" rate of fare—that is, a fare as high as American street car companies demand for the privilege of suspending oneself to their famous straps.

The Paris 'bus is divided into two compartments, first and second class. First class compartment seats are covered with red leather. All the fittings are highly polished, the ceilings are white, the whole compartment is beautifully clean, well-lighted and unmarred by ugly advertising cards.

For two cents you can ride a distance of 1⅞ miles in second class, 3 cents being the first class price. For three cents second class and 5 cents first you can ride the entire length of the line.

In addition, there are special workingmen's rates. All those taking a 'bus before 7:30 a. m. are entitled to ride in any part of the 'bus for second class fare, and by paying 1 cent in addition to the regular fare, receive a return ticket good coming back on the same line at any time the second afternoon. Thus for 4 cents a workingman can go across town in the morning and return home at night. The same trip in an American city would cost probably 10 cents.

The congestion in the central Paris streets is often extraordinary, yet the 'buses make remarkably good time, and accidents are few. Moreover, many Paris streets are extremely narrow and tortuous, the pavements are in many places no better than in American cities, and there are numerous severe grades to climb. In addition, the fuel oils are expensive, being heavily taxed both by the State and the city. Yet in spite of these difficulties, the company was making money before the war, and the Paris populace was thoroughly satisfied with the service.

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Woman's Wit.

Miss Frances B. Ludlow, 20 years old, of 20 Euclid avenue, Yonkers, offered what Magistrate Krotel declared was the best excuse he had ever heard when she was arraigned in the Morrisania court, charged with running her automobile at the rate of thirty-two miles an hour. "I saw a motorcycle behind me," explained Miss Ludlow. "He was coming so fast I was actually afraid he was going to run into me. I went faster and faster, trying to keep out of his way and avoid an accident, but he put on more speed until he shot past me, and then he held up his hand for me to stop, announcing he was an officer. Why, I was never so surprised in my life." The magistrate grinned as he suspended sentence, but he warned Miss Ludlow to be more careful in future.

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Some Hike for Help.

After walking eighteen miles and a half from a point between Chico and Oroville on the Oroville road, Mrs. George Daniels and Miss Leola Stewart, the latter with one of her shoes missing, arrived in Chico at 10:30 one night recently.

The automobile in which they had been riding toward Chico had become stranded eleven miles from Chico at four o'clock Monday afternoon. They were given a ride back seven miles and a half in another automobile to a house where they could telephone for help. They telephoned to Chico to get another automobile to tow the stranded machine and themselves to Chico. Help didn't arrive. A local taxicab man with a machine started to the rescue. He was the help that didn't arrive. He failed to locate the women. They waited until dark and then started to walk. Although only five and a half miles from Oroville, they picked Chico for their destination and started to "hoof it." They had two streams to cross. One was deep enough to force them to remove their shoes. Miss Stewart lost one on the way across and came the rest of the way with only one shoe.

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Cities Can Pass Auto Laws.

Cities possess absolute sovereign powers in the enactment of all municipal legislation and can enact both civil and criminal laws pertaining to municipal affairs, without the slightest interference by the legislature, according to a decision rendered recently by the Oregon Supreme Court in the case of Peter Kalich vs. F. C. Knapp. Knapp brought the action to recover damages sustained in a collision with an automobile driven by the defendant in Portland, contending that the defendant was driving at an unlawful rate of speed. To prove negligence in that respect, the plaintiff offered some ordinances of the City of Portland limiting the speed of vehicles. State Circuit Judge Henry E. McGinn sustained an objection to the introduction of these ordinances on the ground that they had been superceded by an act of the legislature known as the Oregon motor vehicle law. Last June, Supreme Court Justice Chas. N. McNary reversed this decision, and, on a rehearing, majority members of the court upheld the reversal.

Salesmen are Not Chauffeurs.

According to an opinion by the Attorney-General of Illinois, salesmen employed in automobile establishments hereafter will not be classed as chauffeurs. They will, therefore, not be required to obtain driving licenses in order to be permitted to demonstrate cars to prospective customers.

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Autos for War.

During September, the second month of the war, Canada imported from the United States 260 automobiles, as compared with 253 in September, 1913. Total imports for the nine months of 1914, however, show a contraction of 1,406, this year's imports being 3,854, against 5,260 in 1913.

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War Tax on Motorists.

Motorists of this country are not going to escape a direct war tax after all. New Jersey and New York have already decided that according to the wording of the new war tax measure, all applications for license to drive or own a car must be accompanied by a 10 cent revenue stamp. Even motorcyclists will have to pay.

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Russia Buys Cars.

During the first six months of the present year Russia imported automobiles valued at $4,895,500. The imports of automobile parts and parts for bicycles and motorcycles for the same period amounted to $902,500.

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Alcohol Out of Autoing.

As further indicating how alcohol is finding its way out of the automobile industry, it is pertinent to observe that the members of the Philadelphia Automobile Trade Association spent during the past year $1,200 for food at its daily luncheons, and $33 for drinks.

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Pioneer Builder Dead.

Dr. J. W. Carhart, who is said to have built the first self-propelled vehicle, died in San Antonio, Tex., recently, aged 84. He was honored recently by the National Association of Automobile Manufacturers in resolutions recognizing him as the pioneer in the automobile business. He was a retired physician and minister, and formerly lived at Racine, Wis.

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Fine for Drunken Drivers.

Intoxicated persons who operate automobiles on the streets or highways will be subject to a fine of not less than $10 or more than $50, if a measure to be introduced by Senator Allen of Iowa is adopted by the general assembly of that State. The bill provides that persons who are in charge of automobiles shall be sober, and that persons under the influence of liquor shall be barred from the use of the country roads.

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A Fisherman's Turn Next.

Wm. Rawson, Woodland rancher, was badly frightened recently. The reason: William is a law abiding citizen, and he was responsible for the death of a handsome deer—and a doe at that—whereas the open season for such game closed last August.

Hurrying to the telephone immediately after the deed was done, Rawson called for Game Warden Lee Sinkey. "I've killed a deer," said Rawson. Then the rancher explained how it happened. "Oh, that's all right," answered the game warden. "I'll be out in the morning."

The officer returned to Woodland with the remains. As is provided for by the law, the meat was distributed among some deserving poor families. How the doe met its death is a strange tale—but "truth is always stranger than fiction." Rawson was driving his automobile. The light scared up three deer out of the brush. The doe of the flock frightened and attempted to leap a fence. It missed, however, and broke its neck

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Natural Auto License.

Pacific Coast motorists, in common with those from the remainder of the country, must wait a while longer for legislation by Congress making automobile tags general throughout the United States. The Adamson bill, having this for its motive, will not be pressed during the present session.

"In view of the condition of business in the two houses, I shall not undertake to press my bill at this time," said Judge Adamson of Georgia, chairman of the House Committee on Interstate and Foreign commerce, to the Times correspondent. "It is my belief, however, that when Congress is ready to legislate on this important question it should do so along the lines of my bill."

The Adamson bill will be introduced in the next Congress and pressed for passage in both houses. There will probably be no difficulty in putting it through the House, and there may be none in putting it through the Senate. The legislation has been asked for by more than a million users of automobiles. The following quotation from the Adamson bill gives its general scope:

"No person who shall have qualified by complying with the laws and regulations of the State, territory or district of his residence to use and operate such vehicle or vehicles, shall be required in any other State, territory or district into which he may go for business or pleasure to make any additional registration, or take out any additional license in order to use and operate any such machines."

In other words, it is the purpose of the Adamson bill to nationalize the automobile license, making a license taken out in Washington State, for instance, good in any part of the United States, and not continuing in use the present arrangement of requiring a Washington State man to take out licenses in every State which he may visit.

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[illegible]

The value of good roads was demonstrated recently at a session of the San Joaquin Valley supervisors. The county fathers had road matters under discussion when Ralph P. Lane, the well known real estate dealer, walked in to take up a business matter with the board.

"If you want to know what good roads are doing for the county," said Mr. Lane, "I'll recite a little incident. The other day four or five real estate men happened to meet, and during the conversation, one mentioned a certain piece of property and said that he'd like to have each one present jot down on a piece of paper just what he thought the land was worth. It happened that three years ago I offered $65 an acre for the property and the owner asked $75. I didn't buy. I hadn't kept in touch with that piece of property since, and so I jotted down on a piece of paper $75. The other fellows wrote down $125, $130, and so on, the lowest being $125. When they saw my figure they gave me the ha, ha. They said, 'Why, don't you know that that land has gone up since the good roads were built?' I did not realize that the property was accessible to the good roads."

Mr. Lane then asked the supervisors to improve Murray ferry road in Dent township, promising the county a donation of $10 per acre for each of his 160 acre holding if the supervisors would improve the road.

"I have about 200 tons of hay on my ranch that I can't move now on account of the condition of the road. If I were on the good roads I could get $3 more per ton than I would have received by selling before the roads became impassable."

——The fiscal year for the Massachusetts highway commission which controls motor cars in the Bay State, ended November 30th, and the figures just compiled show that motorists contributed a large amount of money to the State this year, a total of $965,669.59.

Up Mount Hood Over the Snow

Government Camp is Reached After Three Hours of Driving

The distinction of having piloted the first automobile past Rhododendron Inn and on toward Mount Hood in the month of January was won quite innocently by Robert A. Hudson recently.

Bundled up in Hudson's car, Mr. and Mrs. Hudson and Mr. and Mrs. Ben A. Bellamy slid out of town at 10 o'clock Sunday morning, aiming in the general direction of Mount Hood. They now admit frankly that they didn't expect to get there, but they were starting on a sort of dare expressed at a dinner party the night previous.

"Ben, let's go to Mount Hood to-morrow," Hudson had ventured good-naturedly.

"We'd never get there in a hundred years," was the reply.

But just for the lark of the thing they agreed that they would make a dash at it anyhow.

The trip came near the end of the long cold spell which Portland experienced during the greater portion of last month, and consequently the roads were as hard, though not as smooth as pavement. Such a time, when both dust and mud are entirely unknown quantities on the road leading to Mount Hood is indeed rare.

"There certainly were a great plenty of chuckholes," recounted Hudson. "But by keeping one wheel in the middle of the road and the opposite one near the outer edge of the highway the trip was really actually easier for the careful driver than many I have taken in the middle of summer. In fact, I have been over nearly every foot of road in Oregon, but I must say that my recent trip to Mount Hood was the best I have ever taken, not excepting drives to Newport, Tillamook and up the McKenzie."

After three hours of driving out of Portland, the daring party was past Rhododendron Inn and within three miles of Government Camp, on Mount Hood. Even then, if they hadn't been "so blooming hungry," as Hudson expressed it, and been drawn back to the inn for eats, they could have made the camp easily, they say.

Hudson first struck snow about four miles this side of Welches, and the machine was plowing through a fall of four or five inches when it was ordered about face to answer the call of the human appetite.

At the inn they were delighted with the information given by the keepers that their car was the first to reach that point as early in the year as January. To make their fame certain, they examined the register and found that no automobile party had ascended that high in January. Nearly a year ago, in February, Walter Giffard, then automobile reporter on The Oregonian, with a party of automobile men broke all records for priority of ex-

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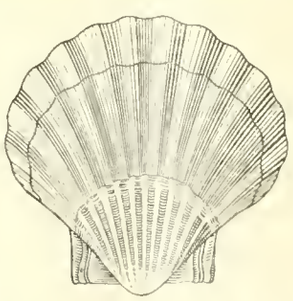

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pedition, but it remained for Hudson's recent dare to transfer the award to the bonnet of his car.

"A condition like we encountered might not exist again in 50 years," says Hudson. "I think it would be impossible for me or any one else to repeat the feat now without great difficulty, because rain has made the ground soft again. Just to prove the condition of the road, we left the inn on our return at 4 o'clock, and reached Portland two hours and fifty minutes later, making about fifty miles of travel without even stopping the car once.

'I have been to the mountain six times, and always before I have had to stop for some reason or other, but not so this last time. And always before I have had to have my car washed carefully upon its return, but this time it was not spattered with a speck of mud or dust.

"Also, it was absolutely the cheapest trip of all. It cost me for the round trip of about 108 miles exactly 15 cents' worth of oil and 7½ gallons of gasoline. I didn't have to look at the radiator for water, and made no adjustment whatever. Of course, I'll admit that I was mighty lucky not to get into some deep rut, but I guess luck is all right when it happens to be of the right brand.

"Just one more thing about going to Mount Hood in January. The scenery there and thereabouts was at its best. Everything that day was as clear as crystal, for there was no smoke or dust to mar our complete view."

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SONG OF THE ROAD.

Sing a song of motor cars, a pocketful ot dough. Some for dinners and cigars and some to go for show. Some for ferry tolls and tires and some for gasoline, and some for labor that aspires to running the machine.

But yonder is a meadow
All beautiful and fair,
And the yellowbreasted meadowlarks,
Are singing everywhere.

The owner's in the front seat counting up his roll, and the watchman at the toll gate is waiting for his toll. This for that, and that for this, a dollar here and there, and twenty green-backs in a row for going anywhere.

But yonder is an orchard
Immaculately white,
And every blossom beautiful
And dancing in the light.

The madam's in the back seat showing off her clothes, and these are very beautiful, as everybody knows. Dusterets and cravenets, tailor suits and veils, and all the other pretty things they capture at the sales.

But yonder is the dogwood
A-blooming on the hill,
And beauty in its burgeoning
Enough for any bill.

—*The Motor News.*

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New Rules For Yosemite Valley

More Privileges to be Granted the Motorists Driving Into This Government Reservation

"See California first" is the slogan of David A. Curry, who is touring the State lecturing and showing moving pictures of the Yosemite and the High Sierras.

Curry is preaching the need of better roads into the valley and more roads through this Switzerland of America, the High Sierras.

It was Curry who first gave out the news that there would be only eleven rules for motorists in the Yosemite this year, instead of sixty, as in 1914, according to a writer in the Los Angeles Examiner.

"Every Californian and every visitor should see the Yosemite and the High Sierras," said Curry, "and I believe it is the desire of the people. The pictures I am showing are enthusiastically received everywhere, and when I announced that I would talk at length on automobile roads into the valley the Mozart Theatre would not hold the people. This should be the greatest year this wonderful pleasure ground has ever known.

Interest in Curry's lecture has been so keen the pictures will be continued for a longer time. The complete set of automobile rules for 1915 are as follows:

1. Motorcycles are not permitted to enter the park.

2. Permits. — Automobiles traveling within the metes and bounds of Yosemite National Park will be required to secure a permit from the acting superintendent on arrival at Yosemite, California.

3. Tickets of Passage.—Tickets of passage must be secured from the first ranger station over the road by which the automobile enters the park, payment for which will be made upon presentation of application for permit with fee at Yosemite, as outlined in paragraph 4. This ticket must be conveniently kept, so that it can be exhibited to proper park officers on demand, and, with the permit, must be surrendered to the last ranger station on leaving the park. Automobiles that enter the park and do not come to Yosemite Village to secure a permit, will make payment of $5 in cash to the last ranger station on leaving the park.

4. Application and Fee.—Application for permit must show (a) name of owner, (b) license number of automobile, (c) name of driver, (d) number of passengers, (e) and be accompanied by a fee of $5 for a single round trip in and out of the park, payable in cash or money order upon arrival at paying station. Checks will not be accepted. An additional fee of $1 will be collected from automobiles entering the Mariposa Big Trees.

5. Floor of the Valley.—Motoring on the floor of the Yosemite Valley, except for ingress and egress, is not permitted. Muffler cut-outs must be closed while using automobiles on the floor of the Yosemite Valley.

6. Distance Apart. Gears and Brakes. —Automobiles while in motion must not be less than 100 yards apart. All automobiles, except while shifting gears, must retain their gears constantly in mesh. Every person presenting an automobile for admission to the park will be required to satisfy the guard issuing the ticket of passage that the brakes of his automobile are in first class working order, and for this purpose all automobilists will be required to effectually block and skid the rear wheels with either foot or hand brake, or such other brakes as may be a part of the equipment of the automobile.

7. Speeds.—Speeds must be limited to six (6) miles per hour in descending steep grades. In ascending, the speed must not exceed nine (9) miles per hour. On good roads with straight stretches, when approaching teams may be visible, the speed may be increased to twelve (12) miles per hour, but in no case must it exceed fifteen (15) miles per hour.

8. Teams.—When teams, saddle horses or pack trains approach, automobiles will take position on outer edge of roadway, regardless of the direction in which they may be going, taking care that sufficient room is left on the inside for the passage of vehicles and animals. Teams have the right of way and automobiles will be backed or otherwise handled as may be necessary so as to enable teams to pass with safety. Automobiles will stop when teams approach and remain at rest until teams have passed or until the person in charge of the animals is satisfied regarding their safety. If the approaching animals manifest signs of fear, the motor must be stopped and such assistance given by the automobile driver as may be necessary. Signal with horn will be given at or near every turn in the road to announce to drivers of approaching teams or animals the proximity of an automobile.

9. Route of Departure.—Checking Watches—Automobiles leaving the park may go by any one of the authorized routes of entrance. Automobile drivers should compare their watches with the clocks at checking stations.

10. Fines.—Fines or other punishment will be imposed for arrival of automobiles at any point before approved lapse of time, hereafter given, at the following rates: Fifty cents per minute for each of first five minutes; $1 per minute for each of the next twenty minutes; $25 fine or ejection from the park, or both, in the discretion of the supervisor of the park, for being more than twenty-five minutes early.

11. Penalties.—Violation of any of the foregoing rules or general regulations for government of the park will cause revocation of permit, and in addition to the penalties hereinbefore indicated, will subject the owner of the automobile to any damages occasioned thereby, ejectment from the reservation, and be cause for refusal to issue new permit to the owner without prior sanction in writing from the Secretary of the Interior.

Schedules and Instructions Over Coulterville Road.—Time of arrival and departure. Automobiles may leave the Merced Big Tree Grove Outpost for Yosemite between the hours of 7:00 a. m. and 3:30 p. m. Automobiles leaving the park via the Coulterville road must start from Yosemite Village between the hours of 6:00 a. m. and 4:00 p. m. Automobiles using the Coulterville road may go and come by the Coulterville grade. Automobiles entering must proceed via the Pohono Bridge, Camp Ahwahnee, Yosemite Village, Sentinel Hotel, Camp Curry, Stoneman Bridge, to garage, Camp Lost Arrow, or to the public automobile camping ground, and may leave in the reverse order.

Over Wawona Road.—Time of arrival and departure. Automobiles must leave Wawona for Yosemite or Glacier Point

between the hours of 6:00 and 8:00 a. m. Automobiles must leave Glacier Point for Wawona or Yosemite between the hours of 6:00 and 8:00 a. m. Automobiles must leave Yosemite for Wawona or Glacier Point between the hours of 6:00 and 8:00 a. m. in order to avoid meeting horse-drawn stages. Automobiles must arrive at Wawona not later than 11:15 a. m. Automobiles must arrive at Glacier Point not later than 1:45 p. m. Automobiles must arrive on the floor of the Yosemite Valley at the foot of the Wawona Grade near Bridal Veil Falls not later than 12:15 p. m. Automobiles entering the valley must proceed via the main road, Camp Ahwahnee, Yosemite Village, etc. (same as for Coulterville road.)

Passing of horse drawn stages.—If an automobile through accident or other cause is unable to reach its destination within the allotted period of time, it must park on the outer edge of the road when the time is up and wait until the horse-drawn stages coming in from the opposite direction have passed. Necessary information will be obtained from the first stage that passes.

Over Big Oak Flat Road.—Time of arrival and departure. Automobiles must leave the Crane Flat Outpost for Yosemite between the hours of 7 a. m. and 3:30 p. m., and must arrive at the Yosemite Village pay station not later than 6:00 p. m. Automobiles leaving the park via the Big Oak Flat road must start from Yosemite Village between the hours of 6 a. m. and 4 p. m. Automobiles in entering must proceed via the foot of the Big Oak Flat grade, Pohono Bridge, Camp Ahwahnee, Yosemite Village, etc. (Same as for Coulterville road.) Automobiles must not use the road from the foot of the Big Oak Flat grade to Yosemite Village along the north side of the Merced River.

Mariposa Big Tree Grove.—Automobile drivers desiring to enter the Mariposa Grove of Big Trees must apply to the clerk at the Wawona Hotel for information as to the time of leaving Wawona, and to the person in charge of the Log Cabin in the Big Tree Grove as to time of departure from the grove.

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Tips to Automobilists

(CUT THIS OUT.)

The News Letter recommends the following garages, hotels and supply houses. Tourists will do well to cut this list out and keep it as a guide:

PALO ALTO.—LARKIN'S CAFE—just opened. The only strictly first-class cafe on the Wishbone Route devoted to the patronage of automobile owners and their families. Corner of University avenue and The Circle.

SAN JOSE.—LAMOLLE GRILL, 36-38 North First street. The best French dinner in California, 75 cents, or a la carte. Automobile parties given particular attention.

PALO ALTO.—PALO ALTO GARAGE, 443 Emmerson St., Tel., P. A 333. Auto livery at all hours. Tires and sundries in stock. Gasoline, oil, repairing, lathework, vulcanizing. Open day and night.

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Proposed Coast Military Highway

For the purpose of strengthening the military defenses of the Pacific Coast, which he asserts are being neglected by the Federal Government, Francis W. Harris, of Renton, has drawn plans for a military highway to extend from Port Townsend south through Aberdeen, Portland, Astoria, San Francisco to San Diego.

"We are told that peace is coming, and it is reasonable to suppose that this is true. However, the dove to-day is marked up on the board as 'twenty-four hours late,'" says Mr. Harris. "When peace and disarmament do arrive, the artillery and battleships will be old waste scrap iron and a loss, and there will be practically no salvage. But every dollar that is spent on this military highway will always be a benefit and as good as the day when it was invested.

"The East and Middle West are amply provided with both railroads and highways, and the comforting knowledge that the Rocky Mountains will keep invaders from the West, according to Mr. Harris. The Pacific Slope has an area of about 320,000 square miles and a population of only 4,000,000, and practically no railroads or highways by which troops could be readily mobilized. It has a coast line of 1,000 miles.

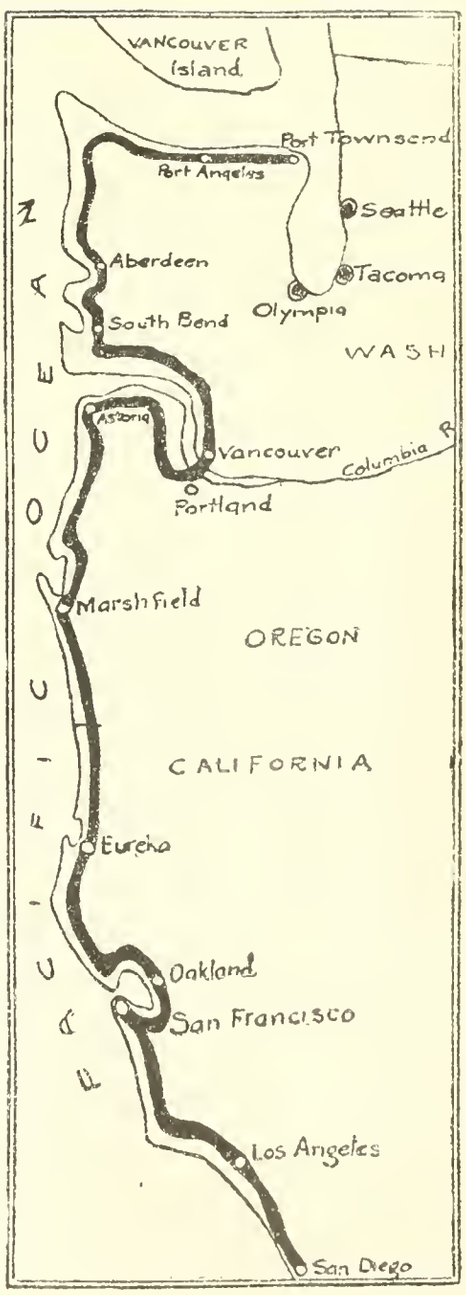
"At the present time a highway along the coast is badly needed to distribute troops rapidly from the nearest railway terminals," continues Mr. Harris, in an analysis of the situation. "Between Portland and San Francisco there is only one railroad, and this could not begin to handle an army bound either north or south.

"The rapid development of motor trucks and automobiles of all kinds will make it possible to move an army of 10,000 men from 150 to 300 miles per day, and advance guard and lightly equipped troops at even greater speeds.

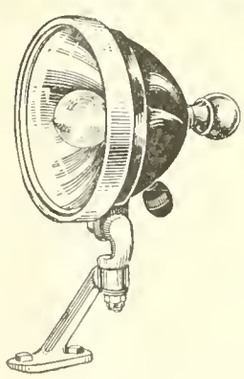
"This road will make it possible to follow on land an attacking or raiding party at sea. A comparatively small force can prevent a landing if on the ground, where an army corps would fail to dislodge them if allowed time to intrench. To-day landings can be made on the coast without opposition at a large number of points.

"True, they would be eventually dislodged and repulsed, but only at a heavy loss to ourselves, both in men and in the small towns destroyed.

"This highway would open up a great country to settlement and development. This would result in large quantities of commissary supplies being right on the ground, thus lessening the burden on the army transports, which are the first things to break down in war time. To-day there is not enough food on the coast to keep a corporal's guard in good fighting trim, and our army would have to carry everything with it on a campaign in this country."



Universal Spot Light



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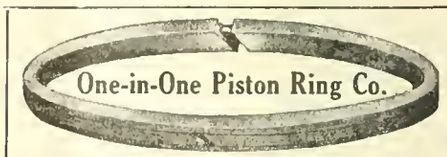

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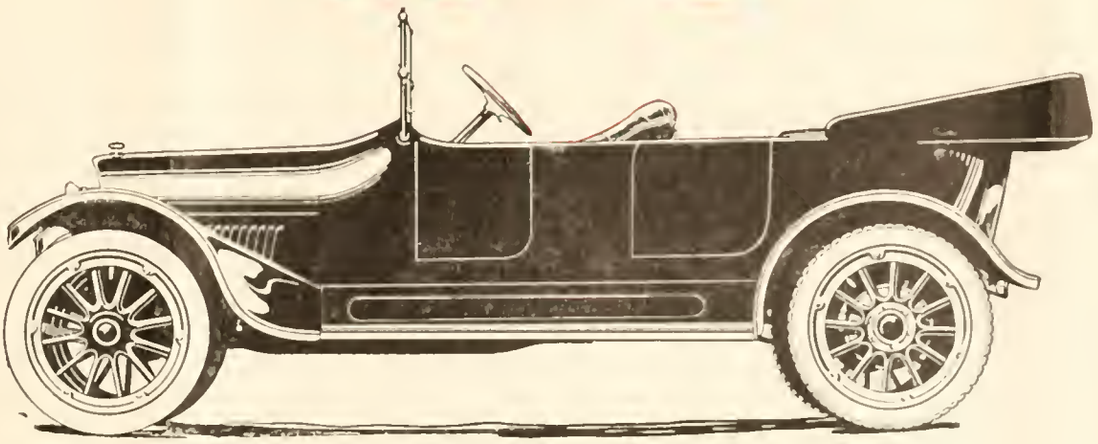

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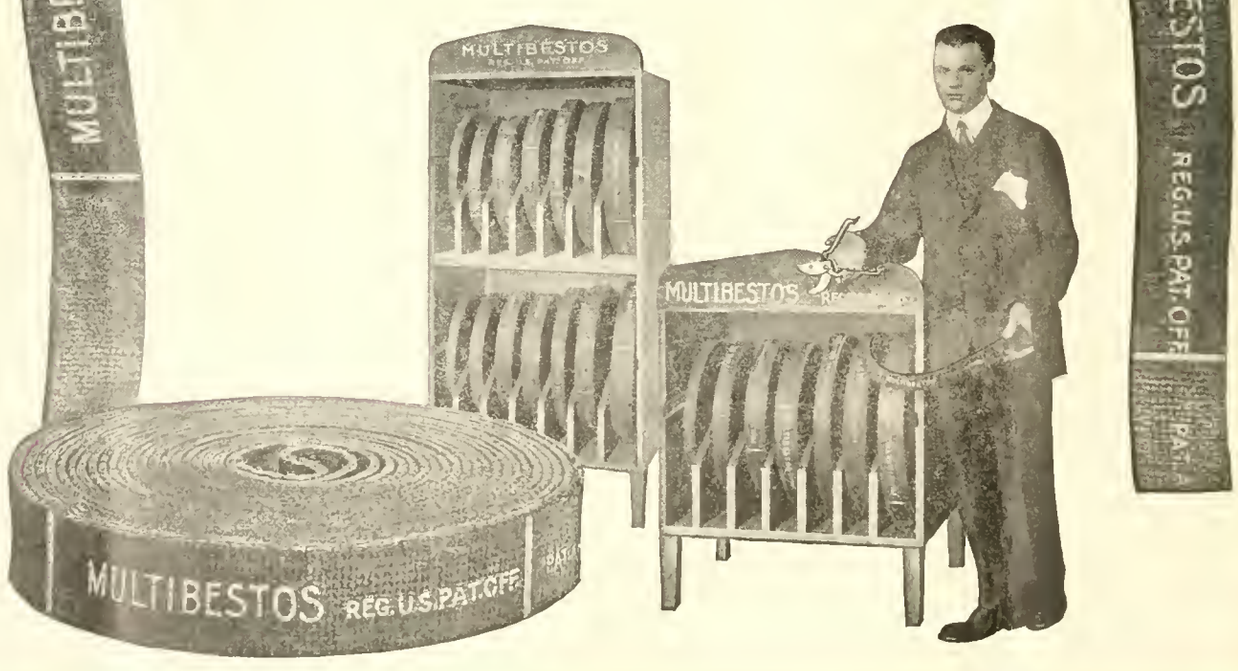

Motoring Magazine

Published Monthly by the Proprietor Frederick Marriott, at the Office 21 Sutter Street, San Francisco, California
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The Dimmer Problem Solved

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A Tour Into the Sonoma Mountains

A Delightful Drive off the Beaten Path to the Geysers

By J. W. Leavitt

How much is in store for the man who buys his first automobile! It must be akin to the feelings of those good old pirates whose names grace the pages of history and to whom the hero worshipers take pleasure in erecting monuments for the discovery of new countries, while "pirating." That anticipation that must have keyed them up to be away and doing is an inheritance which the owner of a motor car can now enjoy.

Instead, however, of going forth to accumulate the goods and chattels of others, the motor car owner goes forth to discover for himself those pleasures of nature which others enjoy, and which through the goodness of the Great Creator, are for those who seek.

Such treasures are within the easy reach of the motorists of San Francisco, and it is for them that this tour out of this city is written.

The objective point was the Geysers, a place where nature displays her idiosyncrasies.

Leaving the ferry at Sausalito, the course led through the town built on the hillside; thence through Waldo Point and over the Alta Grade.

The climb up the grade in the early morning was most interesting. The farmer was abroad, cutting the plenteous crop of grain that showed that some one would be a prospective buyer of a motor car, if he did not already own one.

In the far distance was Mt. Tamalpais, with its high head just turning golden with the rising sun. The southern foothills and lowlands at the base of the mountain seemed more peaceful than ever as we drove over them.

One can easily realize the fascination that has made this section so popular with those who have had more than the desire for dollars and cents in this life.

As the summit was reached the upper bay burst into view, marked at its meeting with the waters of San Pablo Bay by the Brothers light.

Nearer in the foreground were the gray walls of San Quentin, and one could not help but ponder over the conditions of men. Within those gray walls was restraint and depression while we on the

Scene in California, near Corning.

California Highway work.

yonder hills were breathing in the clear morning air, laden with the perfume of freshly cut grain and flowers, on pleasure bent.

From the summit the road wound down to the marsh boulevard. As we descended a view of the rapidly disappearing race track was to be seen. It is not so many years back that this piece of ground was kept in perfect condition, and there blooded stock was broken to harness and trained for speed contests that were the glory of the "knights of the reins." From this race track many four-footed thoroughbreds came who were kings of the road over which we were traveling.

From the time we left the Sausalito ferry until we reached this point we had not encountered a single horse, and one can hardly imagine that such a change could take place in the last ten years.

The road wound around the indentations of the hillsides, and as the course worked further northward, Red Rock loomed up out in the bay.

Like San Quentin this rock is a monument of forlorn hopes, for in the early days of California an enterprising company found value in the rock of this island. The company proceeded to help itself, but its progress to great fortune was one day cut short when Uncle Sam suddenly dropped in and put a stop to proceedings, claiming the right and title to Red Rock.

Passing to the right in Corte Madera the road led on to Larkspur, over a good highway.

The road skirts the marsh through which the Corte Madera Creek runs.

On the creek there are anchored a long string of arks. These floating pleasure homes have now become permanent fixtures on these waters. Some ten years ago they nestled here away from the fury of the winter southerly gales, and as spring time and summer approached they migrated to Belvedere cove, or to Richardson's Bay, off Sausalito, but the fad of living in a floating house has waned, and it is likely that they will go into decay in the spots where they now lie anchored.

In the olden days the yachtsmen, being forced to lay up their fleet-winged boats until the arrival of the summer winds, and unable to resist the call of the salt sea air, hired these arks that were wintering on Corte Madera creek. It was the week-end trips to this locality and the high carnival enjoyed that gave to the place the name, amongst amateur sailors, of the Holy City.

Now all this is changed. Families have taken possession and everything is as decorous as is found within the boundaries of the near-by town of Larkspur.

The beautiful climate and attractive scenery of this section is drawing people more and more to it. Homes are spreading out, mounting higher and higher on the hillsides, and what a few years ago was considered an undesirable location is now being taken up by those who cannot get land nearer the railroad.

The road leads through Kentfield, and when Ross was reached we found that the road would bear comparison to any boulevard. From Ross to San Anselmo the road was fine enough to permit of a car speeding to its limit, but no one with an eye for beauty could bolt through that country.

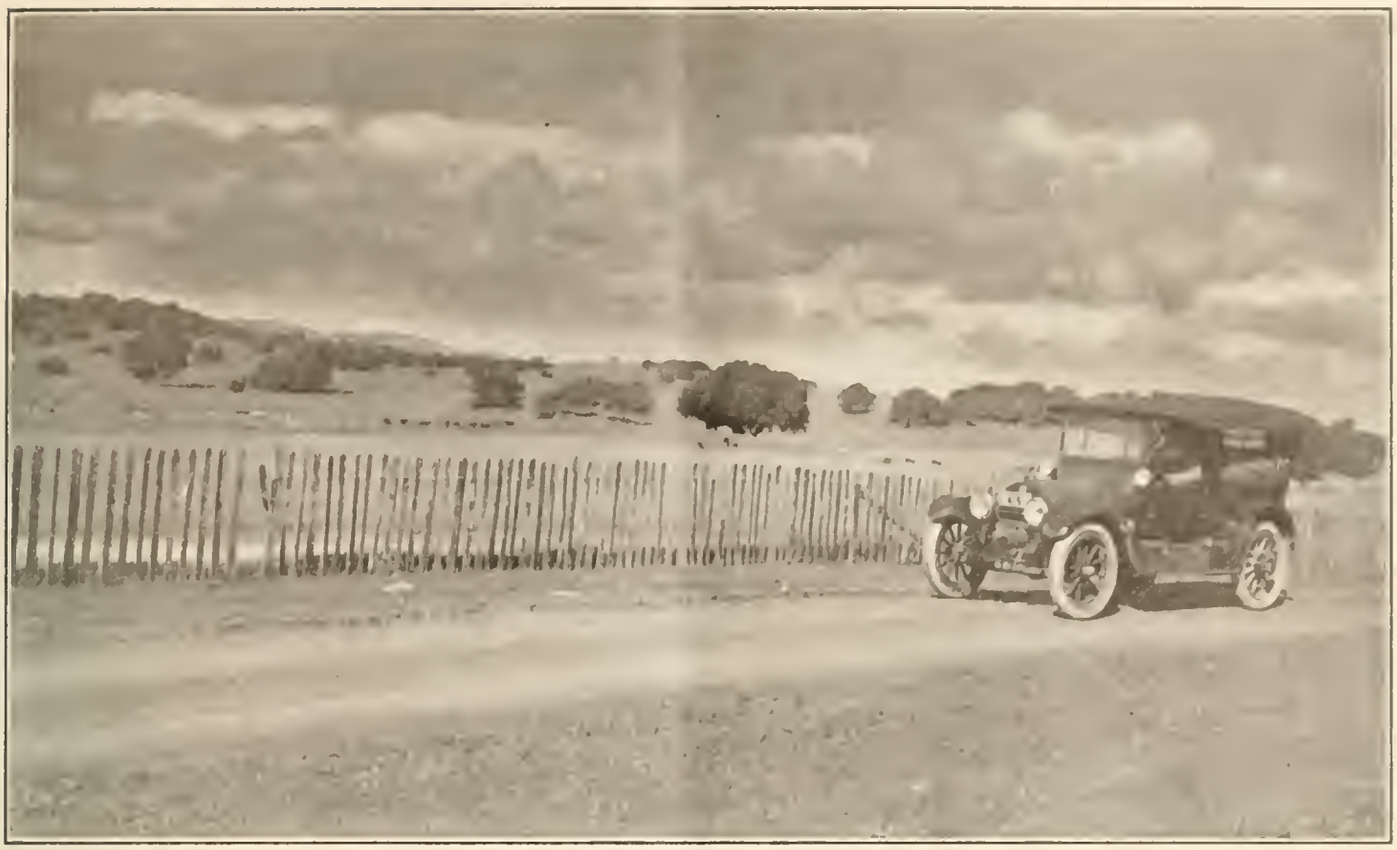
The homes are not pretentious, being good roomy cottages, or as their owners care to have them called, "sweet bungalows."

Roses of every hue, from the deep red of the crimson rambler to the pale pink of the sweet scented Cecil Brunner, grow in profusion. The fancy of the horticulturist was not limited to the rose, but ran riot as was seen in the large number of flowering plants that constantly brightened the way on all sides.

At San Anselmo the road to the right was taken for San Rafael. It wound in around the hills, shaded by the overhanging boughs of the trees decked in their springtime green.

In San Rafael, the same love of flowers was to be seen on every hand, while the homes are much more pretentious than those of the Ross section.

Out of the city into the open country the course led through what is known as Happy Valley, where is located the golf and country club. Out beyond, the upper bay appeared once more bringing in closer view the islands and Point Pedro on the Contra Costa shore.



California Foothill Country, Sonoma.

As the motor car rolled on through this section, those in the car were silent, enjoying the splendors of the country, and inhaling the sweet incense of the buckeye trees, which were in bloom.

When approaching Petaluma, the great hennery of the State, a touch of bygone days was seen when, as the motor car turned a curve and came in sight of a stream, a dozen small urchins sprang out only to be lost sight of the next second as they dove into the creek. The call of youth was heard, and there was a longing to stop and be boys again.

Once past Petaluma, the road led across the Sonoma Valley to the easterly side, thence along the foothills to Santa Rosa. When near the latter place a home was passed that brought to the mind the "House of Seven Gables," only this dwelling had eleven gables.

Santa Rosa, the county seat of Sonoma County, if noted for nothing else will hold its place in history as the home of the wizard, Luther Burbank. Over the well kept fence of his grounds were seen the spineless cactus and many flowering plants.

The road from Santa Rosa led on through Windsor to Healdsburg. As the latter town was neared the flowers and grain fields gave way to the hop vines for which this section is noted.

A stop was made at Healdsburg for luncheon, after which the journey continued on to Cloverdale, past the roads leading to Skaggs and Lytton, through Geyserville and Asti.

The latter town, the home of the Italian-Swiss colony, is one of the greatest wine-producing sections in the State. The roads in this vicinity are unusually fine.

From Cloverdale the course runs on to "Pop" McCray's. A narrative of a journey through this part of Sonoma County would be incomplete without mention of a stop to enjoy the hospitality of "Pop" McCray.

Leaving this popular place and passing over the covered bridge the road turns to the right, as the road to the left continues on to Ukiah or over the Pieta grade into Lake County.

A mile or two of good road brought us to the highway that led up the creek to the Geysers.

As we proceeded, we climbed higher and higher, along the mountain side. It was an exciting ride, the road in many places being so narrow that there was not room enough for a motor car and a pedestrian. On the left was the mountain into which the road was cut, while on the right, sheer down from 100 to 200 feet, or even more in places, lay the creek bed, strewn with huge boulders and ragged rocks, warning of the terrible fate that would result from the slightest misjudgment in driving.

The whole eighteen miles is practically over this kind of a road. There are stretches of it that are not so bad.

After crossing a bridge to the right bank of the creek, we came on to an opening in the mountain side which proved to be the entrance to a quicksilver mine, then in making another turn an old abandoned mine was passed which, it was said, produced considerable free silver in its day.

Finally, signs of habitation commenced to appear and shortly the gates of the Geysers were in view.

The Geysers are a study and a freak of nature most interesting. Springs of boiling water are side by side with springs whose temperature is much cooler than the atmosphere. The steam and mineral springs oozing up out of the ground turn it into mud, the properties of which contain healing qualities that are unexplainable. Those who live there the year in and out tell some strange tales of these waters that trickle down from the springs. They say that in the winter time, or at seasons when but few visit the springs, the wild animals, among which are deer and even bear, have been seen coming down into the creek bottom to bathe.

This in itself might not be unusual were it not for the fact that these animals have not been seen to do likewise in the other creeks in close proximity. It is evident that nature has taught them the value of these life-giving waters.

As one ponders over the greatness of the whole situation, he cannot but think of what a world-renowned spot this would be if it were located in any other place in the world except California, where so many great things abound that this one particular spot does not attract unusual attention.

The return was made over the new bou-

levard. This is a fine road, practically over the tops of two mountain ranges.

This part of the journey was made most interesting by the wild flowers to be seen on every hand. Ever and anon, patches of the slender stemmed scarlet thistle came into view. The blue bell, the orange colored wall flower, and the honeysuckle were prolific, and the coloring of each was deeper and stronger than that of the flowers of the valley below. Field after field was passed bespangled with the Canterbury Bell.

As the summit of the last ridge was reached, there lay before us a scene that was awe-inspiring. Out, below us hundreds of feet, was the broad expanse of the Sonoma Valley in all its richness of vegetation.

The towns through which we had passed the day previous, with their varicolored roofs, looked like clusters of flowers in the lawn of some mighty giant's home. Winding in and out through this valley be-ribboned the Russian river.

We, on the mountain top, realized the greatness of things and felt ourselves Lilliputians.

For half an hour we were spell-bound and were only brought to the realization of things by the extreme heat of the day, which caused us to drive on.

Shortly after leaving the summit, the road led over a course of nine miles down to the valley. This stretch of the trip is most acceptable to the driver, as the precipitous mountain side disappears and there is plenty of room on the road. As the descent is made, glimpses of the valley, now and again, are enjoyed. The houses grow larger and the river broadens until finally one feels that they have assumed their natural proportions.

A short run from the foot of the new road brought us to the main county road near Healdsburg, over which we journeyed homeward over the highway we had traveled the previous day.

YOUR FIRST CAR

The Tale of the Man That Would Find the Open Country

Is it very stupid in 1915 to talk of a first car? You who have gone down the line of motor cars, from your first which was as tall as it was long, will find no thrill in the words. Your first car and all the wonder of it belong to that distant time somewhere around your school days when you offered to take the captain of your football team to the championship game of your league. You had your father's automobile—it was not "car" in those days, nor "machine" nor even "auto"—people were respectful to the strangers. In the middle of that long journey, fully ten miles, something went wrong with something, somewhere. You spread the tools out on the robe and you crept under the car—not that you knew why you did it, surely it came to naught. The football captain walked the remaining five miles and got there in time for condolences (later he black-balled you at his frat election) and you stayed around the automobile all afternoon because the only machine which could have towed you in had seven patients ahead of you, and your only joy was in watching the horses which had to pass your mechanical wonder. That was your first car.

As proud owner of succeeding machines you have followed the march of progress through the coming of sixes and foredoors, of engine pumps and streamline bodies, of self-starters and electric lights. You can think out the most perplexing business problem while driving down Broadway at five o'clock on a Saturday afternoon. If you were suddenly to be deprived of your torpedo-bodied servant you would feel as though you had lost your legs. You are now trying out a new eight; no automobile agent can tell you anything new about a car, inside or out, and these paragraphs are not for you.

But you who watched an automobile drive past your gate some fifteen years ago, and have been watching automobiles drive past that same gate ever since, you who once bought a buggy second-hand because of course you'd get a car before ever you could wear out a new one—and how many second-hand buggies have you had since that time—you will know full well just what is hidden in the three words—the first car.

You nearly bought a car once, and John had to go to college. Then Paul wanted to go into the chicken business, and then Albert had the fall which hurt his spine. And in the meantime the old house was slowly going to pieces—no shingle-patching could keep it from leaking, and what was to have been a six-cylinder became a six-room bungalow. You cheered yourself along with the thought that you had made a wise choice, nor did the boys complain. But you always wanted to look away when they turned to the automobile sections of the magazines. You wished they did not know quite so much about cars. It hurt you to hear them talking carburetors and ignition systems, radius rods and transmissions. A simple quarrel over whether it hurt the tires more to take a corner at thirty miles or use the brakes in slowing down worried you endlessly. To your ears it was an accusation. If you had done differently, you thought with bitterness, they could now be finding out for themselves which did hurt more.

You began to envy Grayson. Grayson lived across the road, and while he owned no car, he also owned no sons, and there seemed plenty of strange cars on hand to take care of his two daughters.

Then one day—Albert had been greasing the buggy—the ultimatum was laid before you.

"We shall have to get a new buggy," said Albert.

And something within you stiffened.

"We will not!" you answered, and shut your lips.

It was then that the great idea came. You had a five-acre piece which was not doing anybody any good. And Grayson wanted it.

And Grayson got it. You told them at noontime, when you were all at dinner. Your wife did not say a word, but she left the table, and an hour later you found her, red-eyed, in the bedroom. She was beginning on a knitted sweater; you would need it, she said, in the car.

But the boys, at your announcement, were a disappointment.

"The crankshaft of the one Paul wants will have to be replaced after three thousand miles," said John. "You see if it doesn't."

"Which is better than boiling water every time it goes into low, the way yours does," Paul shot back, excitedly.

It ended in a deadlock. And then, before you knew it, you had pointed an accusing finger at the self-starter in Al-

bert's choice.

There was a sudden hush. The boys said nothing. But: "What do you know about it, and where did you find out?" said their round eyes.

Where did you find out? You had not the slightest idea. You were always sure that when you looked through the back pages of a magazine, you were hunting for indestructible hose. You were very sure that in the pink sheet you looked up only the baseball score. When you drove out with friends you never bothered about the working of the thing. And here you were ready to talk storage batteries with the best of them!

So you talked. Whereupon it developed that it would take much studying to find out what car was worthy of the fifteen years' wait. Anyway, you were in no hurry; you could spend a fortnight or a month before making up your mind, before even telling any one that you were going to "get one."

Alas for your blindness, you who have never dealt with automobile agents. Grayson told some one that he bought your five acres. And some one told some one else, and that some one else asked "Cash?" in the hearing of an automobile agent. And the automobile agent said: "Who?" and jotted down your name. And whenever one automobile agent says "Who?" and jots down a name, every automobile agent within fifty miles feels a jerking in his right hand, and if he just puts a pencil into it and lets it write, it will jot down that same name, as everybody who has had business with an automobile agent knows perfectly well.

So next morning early a dashing machine rolls into your yard and is put through its tricks. John climbs into the wheel seat—pedals too high for John—a mere trifle—pedals can be shortened, two or three inches. Albert next tries them—pedals too low for Albert. The agent smiles—easiest thing in the world, you know; pedals can be built up, oh, fully two or three inches. But just feel the seat springs, get in and bounce, as much as you want to. And the centralized control and the self-starter. And just look at the way the engine picks up.

You follow, fascinated. The pedal question bothers, a little. Can the same pedals be cut down and built up? Obviously not. But the agent talks and you forget to worry. More than that, you believe him. The morning is his, and surely he makes the most of it.

Every other car on the market is junk. You begin to wonder how it is that the poor tin things don't go to pieces the very first time the gears are shifted. But then, perhaps they do, perhaps that is why Judge Smith brought his new car into the garage the week before. He said he had broken a spring on a rotten bridge. But of course . . .

The agent stays to dinner and you glance out at his car with a proprietary air. You are perfectly satisfied, perfectly. Until next day.

The second agent is a dapper, cheery fellow. You like his face. Too bad he advertises the worst car on the market. The very worst. Didn't yesterday's agent tell you so? The brakes always refuse to work in the tightest places—always.

The dapper agent hopes that he is the first to see you. No? Oh, Ormsby was here? He smiles pityingly. At least he hopes, for your own sake, that you have not committed yourself.

You growl a bit. No, you have not committed yourself. But Ormsby's car looked pretty good to you. Does yet.

But the carburetor—had you noticed the carburetor?

No, come to think of it, you hadn't noticed the carburetor.

Well, if you had not noticed the carburetor . . . of course if you don't really care what sort of carburetor you do get . . .

You are nettled. You watch his car go through its tricks with no enthusiasm whatever. It is all very well, full-floating axle and oil economy, you will catch him when it comes to brakes. But he forestalls you.

"And take a look at the brakes. Finest on the market. Here, let me show you."

It is a statement by Barney Oldfield. You realize that Barney would long ago have perished if it were not for that particular brand of brakes. Your faith in yesterday wanes a little. You ask to have the car put through its tricks once again. Slowly it begins to dawn upon you that this and no other is the car you have always wanted. You consent to take a ride; you call in the orchard for the boys; you stay out two hours, and come back enchanted. Your quest is at an end.

Which happens every day for a week or fortnight. Your neighbors' plowing is quite finished; your neighbors are beginning to harrow. But then, your teams need the rest, you argue it out with your conscience.

In the end you buy a car of which you had never thought before, you pay $500 more than you expected to pay, and the crowd of agents departs with dire prophecies as to what will happen when you are doing forty on a crowded boulevard some evening and your lights go out suddenly. Once more you are at peace—so you think.

The boys learn to drive. You are amazed. After two days of it Paul still zig-zags all over the road. You ask him, trying to conceal your disdain, to trade seats with you. Did not you once ride a bicycle? And did not every agent tell you it was easy as anything for any one who ever rode a bicycle? You try it confidently. A corner? A bridge? What of it?

You get off rather easily—considering. And ever after you are very kind and gentle toward Paul. For it is not every son who will take upon his own innocent head the family's blame for a smashed light and a jammed fender.

Then comes the day you first venture to ask the neighbors out. You phone the Careys—the Careys, to be sure, own a motor vehicle of a sort, but even you used to smile when they spoke of it as a car. You are piqued to find the Careys unresponsive. They are ever so much obliged—but they've been out over the road in their own car, many times. And motoring tires them.

"I should say it would!" you say ironically, and horrify your wife by not hanging up the receiver on your words. You do find company; the Grayson girls have been dying to have you get a car. One of them climbs into the front seat with John, the other sits with Paul, and the mother in the back. You perch on the door and refuse to change places with anybody. You are perfectly comfortable—was not one of your reasons for buying the car the fact that "the body springs make the upholstering a luxury, not a necessity?" Your only concern is that your agent should not see you. If he does, he will be up in the morning to bully you into trading for a seven-passenger.

The rains come on and you take to walking. Because, of course, a car will never be the same after being wet. And you still admonish your boys to refrain from racing, each time they leave the yard. There is nothing worse than racing. Your car is still in cotton wool.

But one day Judge Smith's son goes whizzing past your gate, you'd hate to say how many miles an hour. And a moment later Albert drives in, grinning happily, and going slowly, too slowly for a clear conscience. You glance at the hood and find the water boiling. Albert reddens. You should scold, of course. So you say, eagerly:

"Did he beat you?"

"Huh!" says Albert, and grins again.

Whis is the end of your car's newness. After that you let the dog ride on the seat and forget to lie awake listening for auto thieves. A whole week goes by with the lamps unpolished. And then one day you rise to find it raining, and you call to John to come to the garage and show you how to put down the rain curtains.

Wins Bet on His Tires

When any one tells Mr. More of the More Automobile Company in St. Louis, Mo., that he can't make his Marmon "41" do stunts, he steps right up with an offer of $25 that he can, and then goes ahead and does them. We will quote from one of the St. Louis papers about what Mr. More made his car do, and will simply remind you that the car was equipped with Goodrich Silvertown Cord Tires—in fact, Mr. More said that he would use nothing else.

"The car was first driven from the foot of the hill to the top, with the gear lever in high. At Fourteenth street, which is half-way to the top of the hill, More made a complete circle with the car in order to destroy the momentum. The car went over the top of the hill at fifteen miles an hour. The car was next driven up the hill in high, with the motor throttled down to four miles an hour. More then took the car to the top of the hill, set his gear lever in reverse, threw out his clutch and coasted down the hill for about a block. By this time the car had attained a speed of twelve miles an hour. More then threw in his clutch, which brought the car to a stop within ten feet, and backed up the hill again at a good rate of speed. There was no perceptible jar or jolt, and the clutch or transmission seemed in no way injured. The strain on the rear axle must have been severe, for the odor of burning rubber was perceptible when the tires spun. More also shifted gears a number of times without releasing the clutch."

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Lincoln Highway Films

Detroit, Mich.—The seven thousand-foot Lincoln Highway film which is being taken by the Association is now practically half completed, and the first several thousand feet have been developed and shown in private to Lincoln Highway officials here. The interest and beauty of this section, taken across the States of New Jersey, Pennsylvania, Ohio, Indiana, Illinois and Iowa, exceeds even the sanguine expectation of the men who are directing the filming of the cross country road.

The film is a panorama of some of the most beautiful country to be seen east of the Rocky Mountains, and the interest of the observer is held closely as city after city stage extravagant expositions before the camera's eye. The Lincoln Highway interest which exists across the East and Middle West is shown in a wonderful degree by the thousands who swarm and cheer before the camera at every stopping place.

That the film will form a valuable historical record of the progress of good, permanent roads in this country is certain. A glimpse of every kind of road now in use in this country is afforded, and doubtless our ancestors at some later date, when this country will boast a nation-wide system of roads such as is common in Europe to-day, will look with interest at the evolution of the road from the virgin clay to the perfect cement boulevards which are springing up now in sections along every part of the Lincoln Highway.

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Two Million Autos in the U. S.

On June 1st of the current year the number of automobiles in the United States for the first time reached 2,000,000. Figuring on an average of four persons to each car, which is very conservative, there are 8,000,000 people in this country in daily enjoyment of motoring. What it costs to follow this sport is of interest, because of the stupendous figures involved. To run 2,000,000 cars for one year requires at the very least 1,000,000,000 gallons of "gas" worth $130,000,000; 20,000,000 gallons of lubricating oil worth $8,000,000; 12,000,000 tires, worth not less than $16 apiece, or $192,000,000; accessories and extra comforts, goggles, gloves and caps, $50 per car, or $100,000,000; garage charges on short tours (exclusive of gas and oil), $100 per car per year, or $200,000,000; repairs made necessary by wear, tear and accident (exclusive of tires, $50 per car per year, or $100,000,000. Total running expenses for all cars in use, $730,000,000. Add thereto the value of the 600,000 new cars purchased during the year, at an average price of $750, or $450,000,000, and we get the immense total of $1,180,000,000 spent in a single year (1915) on the sport of motoring.—*Scientific American.*

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Electric Autos Compared With Gas Cars in Germany

In recent times the question has been asked quite often whether and to what extent an electric automobile might take the place of one driven by gasoline. Here it may be mentioned that the German name "Benzinmotorwagen" is simply the traditional name of an automobile originally driven by gasoline, but such automobiles can now be driven well and economically, too, by benzol, alcohol and various mixed fuels. In this respect, the experiences gained during the war have been surprisingly gratifying even for older machines. In comparing an electric with an internal combustion motor car it is sufficient to consider just two points of difference in order to decide under what conditions one car may replace the other.

1. The electric automobile carries a comparatively small supply of energy, whereas the other type of motor car will go eight to ten times farther. If an electric were to be built for long trips it would be too heavy; an internal-combustion motor car, however, can easily be built for a range two or three times larger than the one now usual.

2. An internal-combustion motor car can be supplied with new energy in a few minutes, whereas it takes several hours to charge the storage battery of an electric automobile.

A person making short trips about the city may well get along with an electric automobile with one battery. A taxicab company, however, must have at least two batteries for each car, one of which is being charged while the other is at work. Even so, the business of running taxicabs in a large city has its difficulties, for unexpected lengthy trips may lead to an exhaustion of the accumulators, which means an economic loss. The conditions are much more favorable when an electric automobile is employed as a delivery wagon by department stores, breweries, etc. In that case trips are, as a rule, similar, and it can easily be calculated whether the car will return strong or nearly exhausted.

The conditions are even more favorable for omnibus lines, such as have been operated in Vienna for some time as an experiment. Here, too, the distance which a battery must cover before being replaced is perfectly known beforehand, and both the size of the battery and the time table can easily be arranged so that one battery will suffice for a round trip of about 18 miles. The principal municipal line in Vienna is served by 13 electric omnibuses with 34 batteries, 3 of the cars being held in reserve. In large cities the electric omnibus possesses two remarkable advantages over the internal-combustion motor car—it does not throw out any exhaust gases or produce clouds of smoke and its motor stops whenever the omnibus stops, whereas the internal-combustion motor must be kept running and usually makes a great noise.

It is, therefore, in but few cases and only under special circumstances that an electric automobile can be employed to advantage as a substitute for an internal-combustion motor car.

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——The State Highway Commission has taken over and will further improve Dublin Boulevard, a famous scenic road in Alameda County, connecting Hayward and Dublin Station.

A. F. Nye and party who are inviting Californians to take a trip to British Columbia.

Invites California to British Columbia

Delegation Tour to the Exposition to Extend Invitation to Motorists to Visit Northwest

Following is an account of a trip from Vancouver, B. C., to San Francisco, made by A. F. Nye, representing the American Club, Ltd., B. C., who donated his Winton automobile for this purpose, which is to advise visiting motorists who may be in the neighborhood of San Francisco, and throughout California, of the beauties of motoring into British Columbia, condition of the roads, and of the fact that there are no inconveniences of any kind by which motorists going into Canada would be bothered. Any and all of them are welcome to a fourteen day permit, which will take no more than five minutes of their time as they cross the line. These permits do not necessitate their coming out of Canada via the same route. Any port or entry is open to them for leaving the country by simply surrendering the permit given to them at the original point of entry.

Mr. Nye's party consisted of S. B. Buchanan, representing New Westminster; Mr. Bruce, representing South Vancouver; Mr. Frenlin, representing the Vancouver Automobile Club; and Mr. Mulligan, representing the municipality of Point Grey, a suburb of Vancouver, B. C.

"While our start was made at rather a bad time, our big six required not a particle of help over the entire distance of 1,285 miles, and was ready to start back if called upon to do so," says Nye.

"We had a little bit of tire trouble, but nothing of any seriousness. We found all roads in excellent condition over the Pacific Highway, with the exception of short stretches where new work was going on, but where alternative roads were provided.

"At Portland the Rose Carnival management induced us to remain over a couple of days and put our car in the parade, where we were given a very prominent place, and were most enthusiastically received by fifty or sixty thousand people who lined the sidewalks.

"Referring to one portion of the road, which is the crossing of the Siskiyous, we believe this to be the most finished grade in the world and one of the most beautiful spots on earth. In our own country—British Columbia—as is pretty well known, our roads are all maintained by the government, and are kept in most excellent condition at all times.

"In conclusion, I wish to say we desire to thank the Winton people and their various branch houses along the coast for their kindness in rendering such service as we asked of them in a most cheerful manner. For myself, I would say this service has been superior to any ever given me by any of the makers of the different automobiles I have owned."

From Portland to St. Helens

Delightful Day's Drive by Motor Over Oregon Roads

If you want to take a four hour, 30 mile round trip that involves a combination of excellent roads and varied scenery. get "king's ex," some afternoon soon and aim your motorcar at St. Helens.

Tucked away in the comfortable confines of a 1916 automobile, a party of us pulled away one day last week for one of the most delightful short automobile trips possible. We went by way of the Linnton road, but on the return a swing was taken up over the old Germantown road that departs from the regular highway at Claremont. This change not only gave us a variety of road and scenery, but brought us back over the skyline boulevard and the Cornell road, which is now in a superb condition.

On the entire 60 miles of the round trip, only two rough stretches of road were encountered, the distance intervening between the old Lewis & Clark fair grounds and the Standard Oil plant, and intermittent patches of irregular surface between Scappoose and St. Helens. Just this side of St. Helens workmen are busy perfecting the finest kind of a road, and an insignificant detour is necessitated as a result, but the road that they have completed at the other end is worth going a long way to meet. The motorist is, of course, made happy by the warrenite that bridges the gap between the Standard Oil plant and Claremont Tavern.

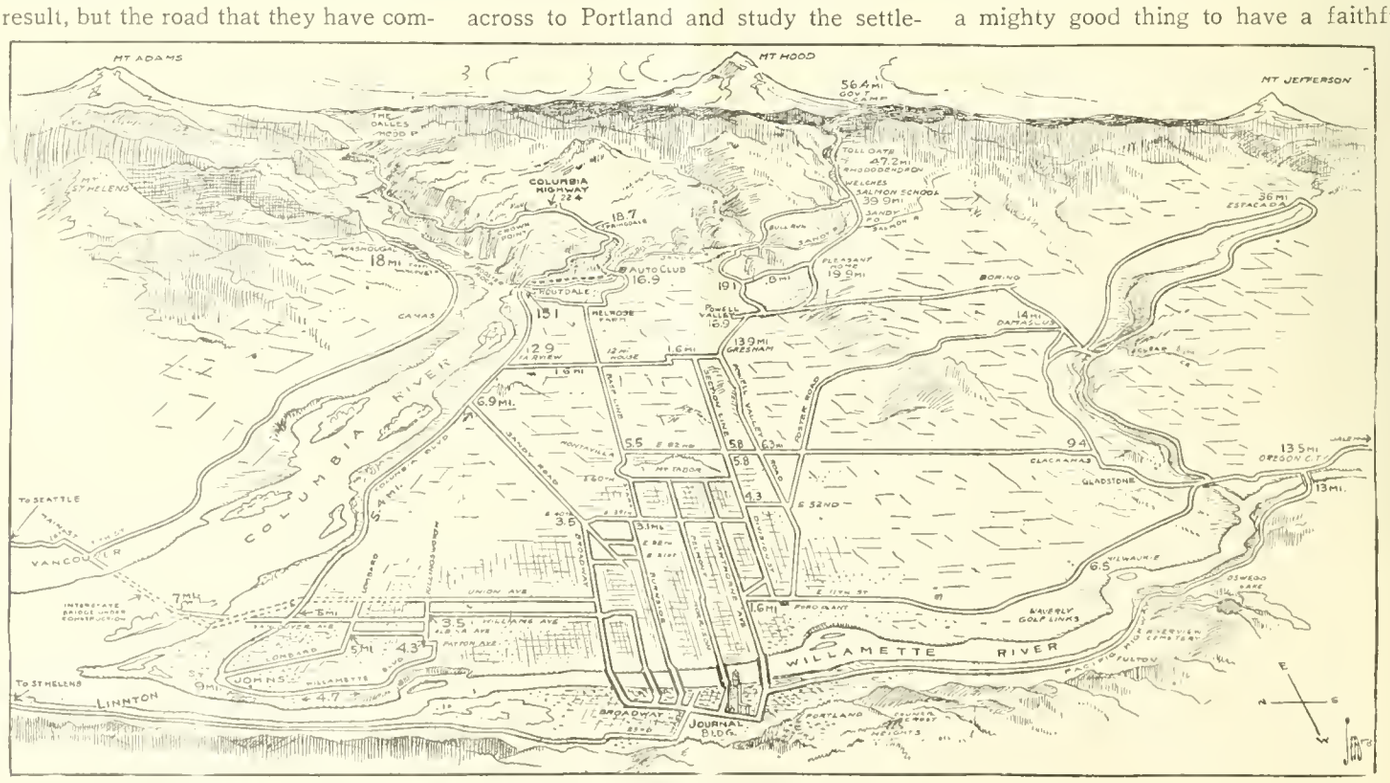
Every motorist has learned of that stretch of road by experience, but comparatively few know that a solid ten miles of highway between Linnton and the Columbia County line, not far this side of Scappoose, had been matted down into a veritable boulevard.

The road that leads to St. Helens might well be called the road of a thousand curves, and perhaps this characteristic is the basis for much of its charm. As each turn is rounded a new landscape is uncovered and a new angle is given to the river and mountain scenery that leads the eye to the eastern horizon.

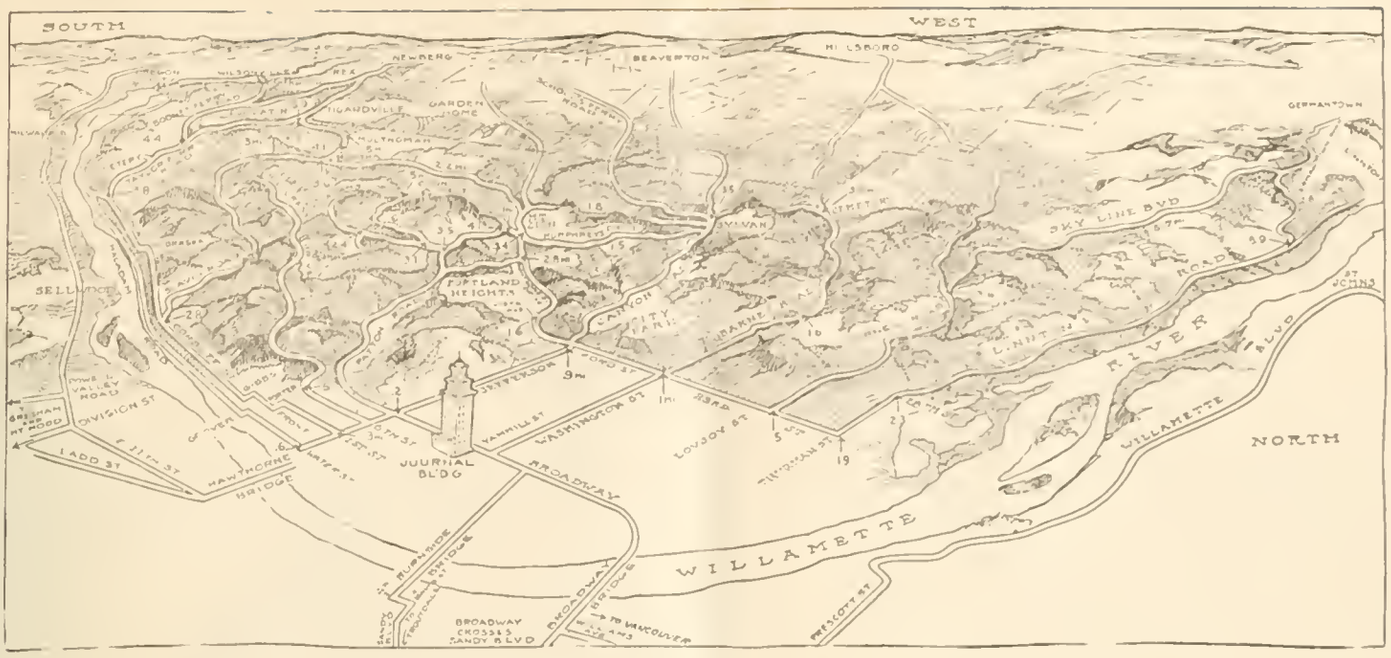
First, as you drop down from Thurman street the site of the 1905 fair commands your attention, then the handsome plants of the Standard Oil Company and the Portland Gas and Coke Company, then the Government moorings and soon the lower harbor that opens out before you. All the time you have been able to look across to Portland and study the settlements that have sprung up in the attractive woods that lie to the west. At Linnton the mammoth plant of the Clark & Wilson Lumber Company is an interesting sight.

Farther down, the road skirts the water's edge in some places. Now the railroad track is below and again it is above the road. As your car lunges from one pretty stretch to another, Mount St. Helens, Mount Adams and Mount Hood alternate in sentinel duty on the eastern skyline, and the variety of scenery is completed by farms and orchards that dot the lowlands.

Perhaps the cream of the trip was the pull up over the Germantown road and Skyline boulevard and the pleasant coast down Cornell road. Any old time you want to ascertain whether or not your motor's lungs are in good shape, turn it loose on the Germantown hills. For every chapter of ascent there are "a couple or six" sharp turns, and the road is just narrow enough to test the driver's nerve and give the passengers a few stitches of excitement, particularly when vehicles come ahead from the opposite direction. It's a mighty good thing to have a faithful



The roads to the east of Portland through most delightful touring country.



Highway to the west of Portland that will provide the visiting motorist with many interesting side trips.

warning signal when you are wandering around on the hills west of the city.

After topping the long hill in "slicker than a whistle" fashion," we were anxious to get back home, so it took to the left at the first fork in the road, and it wasn't long until it had packed us from the skyline boulevard to the Cornell road. Right here allow us to make a recommendation.

Even though you don't make the St. Helens trip, or can't go anywhere else, go out sometime for a taste of the Cornell road. If you haven't been over it recently you don't know what you are missing. You may enter the Cornell road by branching off from Washington street just west of Twenty-third street. It will carry you below and around the edge of Westover Terraces before you come to the prettiest part of the road.

In going to St. Helens it is possible, of course, to travel the first leg of the trip via the Cornell road and the Skyline boulevard and meet the regular Linnton road, where the Germantown road ends by intersecting with it a few yards north of Claremont Tavern. Also it is possible to travel over Willamette boulevard and other paved streets to St. John's, and then ferry across to intersect with the St. Helens road also at Claremont.

Without crowding yourselves at all, you can cover the 29.7 miles to St. Helens in about two hours' running time and return within the same space of time.

State Highway Into Big Basin

A most important public event has occurred with the completion of the State highway into the Big Basin. This wonderful redwood park should be visited in 1915 not only by residents of the State of California, but by all who come here as visitors to see the big Exposition and other California sights. As a primeval redwood forest in all of its natural beauty it is not equaled anywhere.

The park lies in what is commonly known as the Big Basin. Its surface is composed of narrow valleys, plateaus and rolling hills and slopes. It contains a noble forest of gigantic redwood trees, many specimens measuring from 15 to 20 feet and more in diameter, and they are often from 250 to 360 feet high. They are symmetrical, graceful and majestic. It is the oldest known forest in the world. Professor Fernow, the eminent German forester, formerly of the University of Berlin, and now connected with Cornell University, who laid out the forestry system of the United States for the government, says of this forest that it is the most interesting, beautiful and noble of any forest of the world; that aside from the fact of its giant sequoias and the large variety of other trees, the California Redwood park possesses a woodsiness and charm that is a constant delight to the visitor.

There is must to see in this park that is unique among the marvels of nature. The climate is mild and ideal for camping. The elevation is from 1,000 to 1,200 feet above the sea.

According to geographic and other authorities, the height of the Cedar of Lebanon is only about an average of 80 feet, while the giant redwood of the Big Basin towers up to 360 feet, in some instances. The biggest diameter of the cedar is about 16 feet, while many of the giant redwoods in the Big Basin measure over 20 feet.

If the ancient forest of cedars clothing the sides of the mountains of Lebanon were famed the world over for their beauty and enduring qualities, and were visited yearly by multitudes of pilgrims, how much more worthy of a niche in the temple of fame are the giant trees of California.

A good automobile road is now complete into this California redwood park. This park is the property of the State of California, and is free to all. It is a people's playground. Camping is allowed under the direction of the park warden without charge. The grounds at Governor's Camp have a perfect sewerage system, and pure mountain water is on tap at convenient intervals.

The new road is from 16 to 24 feet wide with a maximum grade of 5 per cent in a few places. The tourist at the Exposition can now make the trip into the California Redwood park in from three to five hours, according to how fast he is driven. People from Oakland, Berkeley and Alameda have a straight drive of 60 miles of fine valley road, and 19 miles of mountain grade. They can come straight through the valley of Santa Clara, passing through San Jose almost in a straight line, and go right into the Governor's Camp in the heart of the park. On May 1st the hotel at Governor's Camp was opened under the able management of Mrs. Glass. Board and lodging can be had at $2.25 per day. Single meals are 50 cents; dinners 75 cents. Board per week $14.

——"Is your car a good one?" "Discriminating people choose them," said the glib automobile salesman. "More of our cars are stolen than any other make."—*Kansas City Journal.*

Into the Snohomish County

Interesting Tour Out of Seattle Made Possible by the Motor Car

For a short day's run in the backwoods country, with an occasional city along the route, the trip mapped out to Edmonds, Everett, Snohomish and return by way of Bothell is one that is featured by diversified scenery and good roads practically all the way. The circuit calls for 75.7 miles of travel. This distance is ideal for the motorist who delights in traveling leisurely and prefers a picnic luncheon to one in a restaurant. There are numerous attractive luncheon stops along the road, while in Everett and Snohomish one may obtain good restaurant accommodations.

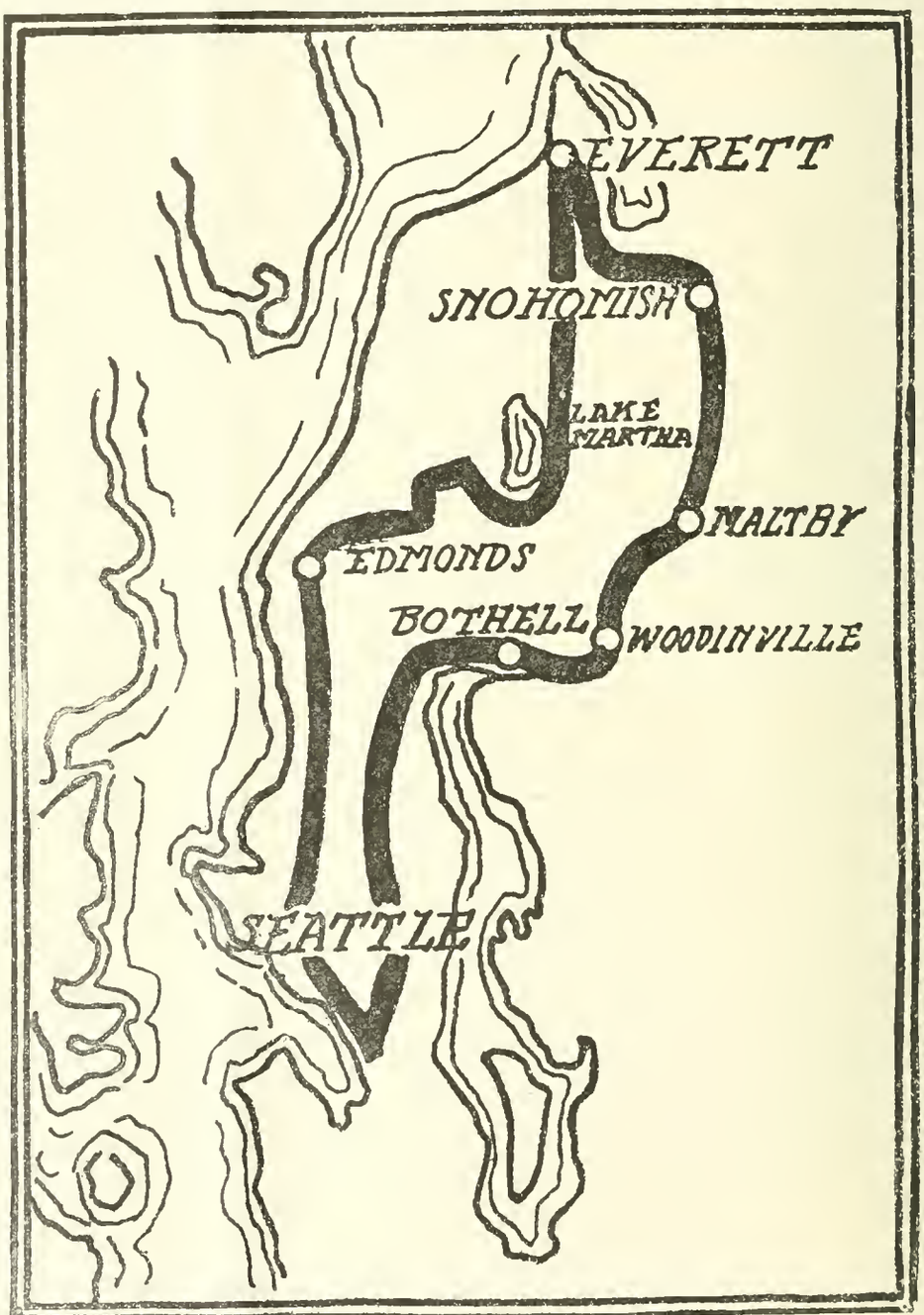
In leaving Seattle, one drives over the Westlake Boulevard, skirting the western shores of Lake Union, through Fremont and past beautiful Woodland Park. From the summit of the hill one obtains a splendid panoramic view of Puget Sound with the rugged, snow-capped Olympic Mountains towering high into the sky in the background.

Continuing northward, the car reached the city limits, where the Golf Club road begins. This thoroughfare is closed temporarily on account of construction work, and it is necessary to travel eastward a short distance to the new brick-paved North Trunk road. This splendid highway is followed for a short distance, and then a side road leads back to the Golf Club road, which takes one through attractive wooded country and past the beautiful grounds of the club, ten miles from the city.

Beyond the Golf Club the road takes an easy grade down to the town of Edmonds, 16.7 miles from Seattle. Along the route to Edmonds, one obtains numerous glimpses of Puget Sound, from which there is a cooling breeze to add to the enjoyment of motoring in warm weather.

From Edmonds the route leads up over the hill that overlooks Puget Sound and the Olympic Range, traversing a prairie country that at this time of the year is a favorite field for berry pickers. The Times pathfinder counted no less than fifty persons along the route picking blackberries.

A ride of 22.3 miles from Seattle brings the motorist to Martha Lake, a beautiful body of fresh water hidden in the woods. Here is an ideal luncheon spot; or, if one is not hungry, he will find a short stop near the cool waters of the lake inviting. About three miles farther on the Pacific Highway is reached, and this route is followed north.



Map showing route through Snohomish Country.

Silver Lake, 30.3 miles from Seattle by way of Edmonds, is a beautiful spot, and offers countless picnicking spots. Six miles farther on over the Pacific Highway is Everett, on Puget Sound, where the motorist may obtain good meals and automobile supplies of all kinds.

From Everett to Snohomish there are two routes. The pathfinder preferring the one by way of Lowell because of the absence of grades and the fact that it traverses the western and southern edges of the great Snohomish Valley. There are many miles of paved roads, too.

At a point 44.4 miles from Seattle there is a fork in the highway. The left branch leads into Snohomish, 1.2 miles, and the right fork leads to Bothell, the return route. Should the motorist care to take

the short run into Snohomish, he will find good roads and pleasant scenery. The pathfinder did not include the mileage from the forks into Snohomish, so those automobilists who continue on into the city should, upon returning to the forks in the road, set their odometer back to 44.4 miles in order that there be no possibility of getting off the route on the return run.

From the forks in the road to Bothell one traverses a beautiful backwoods country. The roads are above the average, and there is a diversity of forest, field and stream views that is pleasing. Crossing the Sammamish River near Botell one is surprised by the richness of the scenery. This beautiful stream is followed into Botell, where the Pacific Highway is again tapped. From here into Seattle, a distance of approximately sixteen and a half miles, there is a magnificent boulevard that gives countless views of Lake Washington, the Cascade Mountains, and, on clear days, a matchless glimpse of majestic Mount Rainier, which pierces the clouds to an elevation of 14,526 feet.

The city is entered by way of the university district and over Eastlake avenue, skirting the eastern shores of Lake Union.

The complete and accurate log of the trip is as follows:

0.0 Start—Second avenue and Union street; north in Second avenue to Pine street; right three blocks to Westlake avenue; then left in Westlake.

1.4—Pass Lake Union on right. Follow pavement to left past Stone avenue bridge.

2.9—Turn right and cross bridge over canal; straight ahead up paved street (Fremont avenue.)

4.2—Turn left, passing Woodland Park on right. Three blocks farther turn right along car line.

5.2—Veer to left, following car line.

6.1—City limits. Turn right over planked streets and gravel road. (Gold Club road temporarily closed on account of construction work.)

6.7—Turn left over brick paved road.

7.5—Turn left off paved road and up hill.

7.7—North Park Station. Caution—Look out for interurban cars.

8.0—Turn right upon Golf Club road.

9.1—Straight ahead, passing school on left..

10.1—Straight ahead, passing Golf Club grounds on left.

10.6—Straight ahead.

10.8—Straight ahead.

11.1—Crossroads.

11.2—Straight ahead, down grade.

11.4—Left fork.

11.9—Straight ahead.

12.2—Straight ahead.

12.7—Left fork in wide gravel road.

13.2—Turn right.

13.3—Straight ahead. (Left fork to Richmond Beach.)

14.9—Straight ahead.

15.6—Turn left down grade.

16.1—Turn left.

16.7—Edmonds—Turn right at Yost's Garage and up grade.

17.0—Straight ahead.

18.3—Straight ahead.

18.8—Left.

19.8—Turn right.

22.3—Alderwood.

24.3—Turn right.

25.4—Cross railroad.

26.0—Pass Martha Lake on left.

27.2—Turn left over Pacific Highway.

30.3—Silver Lake.

30.5—Straight ahead over main road, and turn right at forks in road at north end of Silver Lake.

31.9—Beverly Station—Caution—Look out for interurban cars.

33.6—Left fork.

34.2—Turn right at north end of Country Club.

35.2—Turn right to Colby avenue (paved street), then left to

36.4—Everett—Corner of Colby and Hewitt. Turn right in Hewitt to Broadway, then right over paved street and paved highway.

37.8—Left at cemetery, following paved road.

39.5—Cross wooden bridge.

39.5—Straight ahead over gravel road.

42.4—Turn left.

43.1—Caution—Sharp turn.

44.4—Turn right. (Left fork to Snohomish, 1.2 miles.)

44.7—Straight ahead.

46.0—Up grade.

46.1—Left and cross railroad.

46.7—Straight ahead.

48.2—Right turn into Cathcart.

48.3—Cross bridge over railroad.

48.9—Straight ahead.

51.3—Cross railroad.

51.5—Maltby—Depot on right.

51.6—Turn right across railroad.

53.0—Turn left, passing white house on right.

55.—Grace—Depot on left.

55.3—Straight ahead.

56.0—Cross railroad and take right fork.

57.0—Turn right, passing school on left.

57.2—Cross trestle and railroad.

57.4—Woodinville—Pass depot on the right.

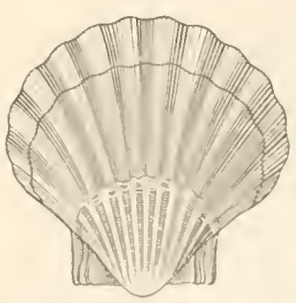
57.9—Straight ahead. (Left fork to Kirkland.)

58.2—Right and cross bridge.

59.2—Right fork into Bothell. Proceed straight ahead over Pacific Highway to Seattle.

75.7—Second and Union. E

End of tour.



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A Tour Through National Parks

Southern Motorist Plans Visiting the Reservations of the West

A 6,000 mile circuit of the finest scenic features of America, including every prominent National Park in the West, is the trip just planned by Harold L. Arnold of Southern California.

"It is such a wonderful trip," says Arnold, "that if those who are able to indulge in such a vacation could know just how, when and where to go, there would be hundreds of machines on the route this year. To make a transcontinental journey, or any long motor trip, one of the first essentials is plenty of weather proof storage room in the machine. The old-time way was to pack the outfit on the running boards, hang it on the lamps, or strap it to the top irons, as best one could. That way makes the best car look like a peddler's wagon and in less than a day after leaving home this outside luggage is so full of dust and dirt that it takes away half the pleasure of the trip.

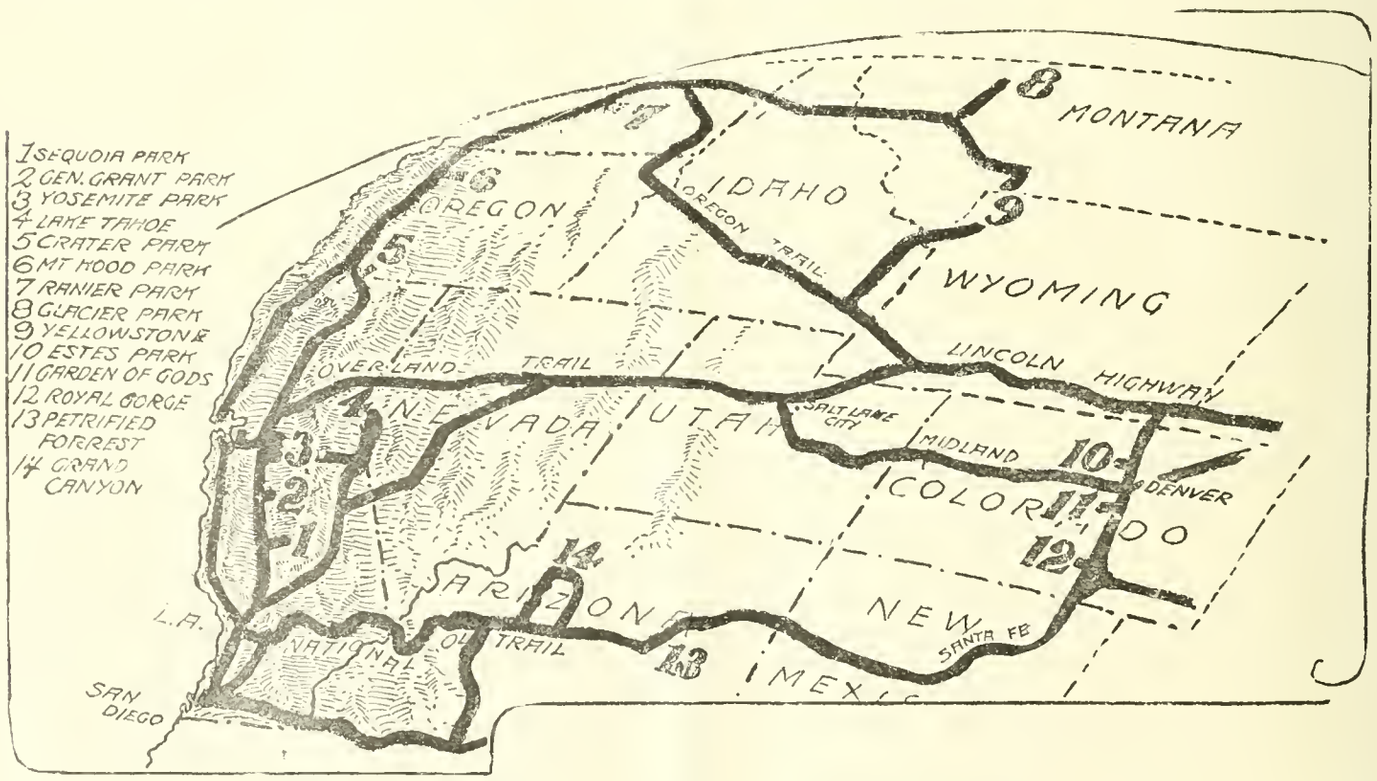
"In fitting up one of our cars we had this storage in mind, and we found that the 100 per cent extra room they provided was sufficient to carry all our luggage, camp blankets, sleeping cots, folding chairs, cooking utensils, camp stove and food supplies.

"This equipment is all under a weather proof and tight-hinged back, and when we are packed up for the long National Park trip there won't be an extra piece of luggage showing anywhere on the car. The route we have laid out traverses the grandest scenic regions in the West.

"In California the itinerary includes Sequoia and General Grant National Parks, Yosemite Valley and the Mariposa Grove of Big Trees, Lake Tahoe and Mt. Shasta, with a stop en route at the Exposition. The Pacific Highway will be taken from San Francisco north through Oregon and Washington, visiting on the way the celebrated Crater National Park, with its wonderful bottomless lake two thousand feet below the rim of the crater. Equally interesting is Rainier National Park in Washington, where the government has built a new motor road right to the foot of Nisqually Glacier. At Seattle the National Park route turns east over Snoqualmie Pass through the Coast Range to Spokane, and through the famous Coeur d'Alene mining district and past the Bunker Hill and Sullivan mines.

"Just within Montana and right up on the roof of the United States, as it were, the motorist will spend a delightful week among the wonders of Glacier National Park. Southwest from there the road crosses the continental divide into Butte, the site of the greatest copper mine in the world.

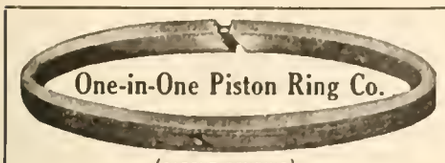
"Turning directly south at Livingstone, Yellowstone National Park is visited, and the motorist will there see a region of wonders not duplicated anywhere on earth. The spouting geysers, in themselves, are worthy of the long journey, and a dozen and one other curious sights will be stored away in the memory as part of the best of the National Park circuit.



"From the Yellowstone the route continues south to the Lincoln Highway and east through Wyoming and Cheyenne. Then again south to Denver, Estey National Park, Garden of the Gods, Pike's Peak, Royal Gorge, Skyline Drive, Raton Pass and along the Santa Fe route to Albuquerque. West through Arizona this wonderful route traverses a hundred interesting spots, the Petrified Forests, Cliff Dwellings, Meteor Crater, Sunset Volcanoes, Grand Canyon, Painted Desert and others too numerous to mention.

"The last leg of this six thousand mile trip is into Los Angeles via Needles and

Barstow, with a sufficient taste of real desert traveling to make the beauties of our home development appreciated as a fitting finale to a trip unequaled anywhere in America."



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Trip Out of Santa Rosa

A trip that can be enjoyed by any one is to start from Santa Rosa, thence to Burke's Sanitarium and Mark West, on to the Petrified Forest, retracing your road a short distance and turn back by way of the Rincon grade home.

There is not a single mile of this journey that is not crowded with beauties. The pleasant ride from town on the highway to Guinns Corners, four miles, then turning off the main road a short distance until you reach Burke's. This is a very pretty place, and worth while inspecting should you have a few moments. Then you start to climb. You wind along the beautiful Mark West Creek through beautiful scenery for several miles until you come to Mark West. Here is a pleasant and good place to stop for lunch or a rest. Starting again from here, travel about five miles until you come to the picturesque Petrified Forest. After spending some time at this place, retrace your road a short distance and turn to the south. This will take you over some more interesting road, and back home by way of the Rincon Grade, and down through the Valley.

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Be Careful on Big Basin

"I have no criticism to offer of the new State highway into the Big Basin," stated George Osen after a trip over the new route by way of the Saratoga summit into the Big Tree forest. "However, I would advise people who use the road to drive slowly, as some of the turns are rather short."

Osen left San Jose with a party of five. Leaving San Jose at 8:30 a. m., the party arrived in Governor's Camp, a distance of 34 miles, at 11:15. No attempt was made to hurry. The distance from San Jose to the Saratoga summit, where the new State road starts, is 17 miles, according to the speedometer. The grade is rather heavy between Saratoga and the summit, and at times Osen shifted to the second but never into the low gear.

Returning, the trip was all made on the high gear. No braking was necessary in descending the east side of the summit into the Santa Clara Valley.

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——"A great deal of what we call pleasure is largely imaginary," said the ready made philosopher.

"I suppose so," replied the man who was working on his automobile.

"Now, wouldn't you like to be able to take a long ride without having to worry about speed limits or spark plugs or tires or anything at all?" "I should say so!"

"Well, here's a street car ticket."

—*Washington Star.*

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The Most Costly Road in the World

Mitchell's Point Cut on Columbia Expensive Piece of Highway Engineering

Unless construction work begun by the New York State Highway Commission around Cloud Mountain on the Hudson costs more, the Mitchell's Point section of the Columbia Highway will be the most expensive wagon and automobile road in the United States. This three-quarters of a mile of new road, being built under the supervision of the State Highway Commission of Oregon, will cost $50,000. However, except for a third of a mile this work is ordinary filling. The remaining part comprises the gigantic task, that, when completed, will make the Mitchell's Point section of the road the most noted in the mountainous districts of the Pacific Coast or of the world.

Engineers declare that no other highway in the world has ever been constructed just as the third of a mile around Mitchell's Point. For several hundred feet the road passes through a tunnel cut in solid rock. In the side overlooking the Columbia, five big windows, "peepholes," have been cut, giving the light for the subterranean passage and making it possible to secure an effective view of the Columbia, 100 feet almost directly beneath the roadway, which seems to jut out over the base of the cliff at this paint.

The Axenstrasse of Switzerland, about which so much has been written, is of similar construction. But in the case of the latter road, instead of holes having been cut, the side windows are more like a series of arches or arcades, and have been built up, the road having been merely cut into the side of the mountain.

The walls of these windows at Mitchell's Point are of rough stone. No concrete has been needed to hold them in place. They are ten feet thick in places.

Unless the motorist passing through the tunnel gets down from his machine and peers over the edge of the window base it will seem to him that he is above the Columbia's waters.

Mitchell's Point is a huge formation of basalt and lava rock, and through it run several seams of peculiarly hard coal. The crews crossed a three-foot seam in their excavation work. In appearance the coal is similar to the Pennsylvania anthracite, but its burning qualities are poor.

In reality there are two Mitchell's Points, Little Mitchell's and Big Mitchell's, as they have become known to those who reside near the giagantic crags. The small point rises to a height of from 300 to 400 feet just above the river's edge and the O. W. R. & N. Company's tracks.

From its topmost jagged point it slopes gently back to the base of the larger crag, and through this, terrace-like, passes the old State highway, over which motor cars must travel until the tunnel is completed, winds around tortuous curves and up grades impossible except to high-powered machines. The second and larger formation rises to an altitude of more than 1,000 feet. It extends back in a gentle slope to the range of mountains that forms the west barrier of the Hood River Valley. The ridge of Big Mitchell's is sharp edged. The mountaineer who dares an ascent of it must crawl on hands and knees to reach the summit, at the very point, and the topmost points of both these peculiar crags of the Cascades jut over their bases.

While most of the salient points of the Cascades along the Columbia have some interesting significance in Indian legend, no authentic legend has ever been told of Mitchell's Point. A story prevails to the effect that in early days a man named Mitchell, when chased by hostile redmen, plunged over the precipice and was killed. But this seems to have no foundation. "When I first came to Hood River," said E. L. Smith, who removed to the valley 39 years ago from Olympia, where he had resided with his family when Secretary of Washington Territory, "we called Mitchell's Point 'Storm Cliff.' The rain and wind clouds that were brought scurrying up the Columbia always seemed to be divided here and sent eddying around the Hood River Valley." The name is an appropriate one.

The pines and firs that have found root in the sides of the points bear mute evidence of their struggle with the wind that ever blows strongly on the exposed crag-sides. The contour of the rugged stone mass, as one stands at either the east or west approach to the tunnel work of the Columbia Highway, showing the jagged cliffs, the gnarled trees and the sheer, precipitous drops, is awe-inspiring. High up on the face of the larger cliff is a white pedestal, stowed back in a niche-like hole. Those who have climbed the trail that leads almost perpendicularly to the niche have found this white ghost-like column to be the tall stump of a petrified tree.

Edgar Locke, a rancher who has an orchard place just east of Mitchell's Point, has a flock of white goats that have run wild, and now make the eerie crags their home. Strangers, unacquainted with the region, have often taken these animals for wild goats.

By following rough trails that lead around the base of the big point to the wooded ranges that lie back of Mitchell's Point, the explorer may in an hour's time reach spots as virgin and unmolested as though they were one hundred miles from any habitation. Deed hunters find this a favorite shooting ground in the fall. However, the small bushes on the places not overgrown with larger forest trees render much of this country almost impassable. This district along the top of the great gorge is known as the "brakes of the Columbia."

Cougars often come down from the Columbia from these wilds. A year ago one was seen swimming the Columbia just west of Mitchell's Point. A boatman made an effort to lasso the big cat, but was afraid to put his plans into effect when the cougar began to swim towards his boat. Bobcats may be found there by the score.

In the fall of 1913 Judge A. J. Derby and F. E. Newby were returning from grouse hunting down the sides of the larger crag when they were startled by a bleat and a scurrying of feet above them. Looking toward the summit of Big Mitchell's, they saw a bobcat in full flight, pursued by one of Locke's wild goats. The cat took to a stunted pine, while the goat pawed ferociously and vented his anger on bushes around the roots of the tree.

The five mile stretches of Columbia Highway, a portion between Cascade Locks and the Multnomah County line, and the remainder between Wyeth and Viento, stations on the O.-W. R. & N. lines, are just about completed. In fact, it is now possible for an automobile to travel from Hood River to Portland. The

way, however, on account of places not being smoothed, will make the journey uncomfortable for a time.

These sections of the great scenic wagon and automobile road have been built by the Newport Land and Construction Company from the proceeds of a $75,000 bond issue sold by Hood River County last year. This $75,000 for five miles of construction as compared with the $50,000 for the three-quarters of a mile around Mitchell's Point, shows the extreme high cost of the latter. With 95 per cent or more of the $50,000 expended on a third of a mile, where the road will pass through solid rock, cuts or tunnel, and over one of the largest concrete viaducts on the highway, this construction work is as expensive as railroad work. The lines built up the Deschutes River are said to have been as expensive as any ever constructed in this portion of the United States, and the average cost per mile of the heavy rock excavation work there ranged around $60,000.

Crews of men are now engaged in digging more than 100 feet into the earth to bedrock for the concrete piers that will support the 200 feet long concrete viaduct, 90 feet above the O.-W. R. & N. tracks. The viaduct is at the west end of the tunnel.

One of the most expensive points in Hood River County, leaving aside the Mitchell's Point work, was at what the engineers have termed "the gateway," where, just west of Lindsay Creek, a passage was blown through fairly solid rock. Formerly the rocky cliffs obstructed the view, but since the road has been opened a large slice has been taken out of the gorge side, and one is enabled to see for a long distance up the Columbia, and thus the name.

Fairly heavy work was also encountered west of Cascade Locks, as well as at Shell Rock Mountain, east of Wyeth. At both points the sides of the gorge are slowly sliding in toward the river. The trees just this side of the Multnomah County line, their trunks bowed, show the effects of the moving earth.

At Shell Rock the initial work on the Columbia Highway was done in 1912, when ex-Governor West, with a fund of $10,000, having been donated by S. Benson, detailed a party of honor men to construct the highway around the difficult point. The work of the convicts for the most part has been abandoned. The retaining walls constructed by these unskilled men in many cases have already fallen. The dry masonry of the new work is entirely of different construction, and will stand the onslaughts of the winter's storms.

"The entire highway will be fairly passable by August 1st," said J. A. Elliott, State Engineer in charge of the work. "Numbers of persons who have recently gone over the scenes of construction have advanced opinions that no motorcars could well travel the rough surface this year. However, the road to them probably looked like a house just before the carpenters left it. It no doubt seemed pretty badly mussed up, but the clearing away process will make a change in appearances."

Hood River people are eagerly awaiting date when the great completed scenic boulevard will be an actual reality and when the scores of long looked for automobiles will begin to pass through the orchard districts. Scores visit the Mitchell's Point work, and invariably they return a hundred fold more enthusiastic than before the journey.

The expressions of gratitude for the philanthropy of S. Benson are unbounded, and discussions are often participated in as to what may be done to evidence most this respect and honor for the dean of Oregon's good roads enthusiasts. A suggestion has been made by E. L. Smith, one of Hood River's most distinguished and beloved citizens, and for many years a close friend of Mr. Benson, that has received much commendation. Mr. Smith proposes that the Hood River portion of the highway be officially known as the Benson section of the Columbia Highway, and that appropriate testimonial tablets be placed along the route.

——Sales of American autos in Venezuela have increased materially since the outbreak of the European war, despite unfavorable economic conditions due to prompt reduction of all Government salaries and the paucity of markets for exports. More than 90 per cent of the automobiles imported come through the port of La Guaira. From July, 1914, to March, 1915, both inclusive, only four European cars were imported, as compared with 97 new American cars.

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Tips to Automobilists
(CUT THIS OUT.)

The News Letter recommends the following garages, hotels and supply houses. Tourists will do well to cut this list out and keep it as a guide:

PALO ALTO.—LARKIN'S CAFE—just opened. The only strictly first-class cafe on the Wishbone Route devoted to the patronage of automobile owners and their families. Corner of University avenue and The Circle.

SAN JOSE.—LAMOLLE GRILL, 36-38 North First street. The best French dinner in California, 75 cents, or a la carte. Automobile parties given particular attention.

PALO ALTO.—PALO ALTO GARAGE, 443 Emmerson St., Tel., P. A. 333. Auto livery at all hours. Tires and sundries in stock. Gasoline, oil, repairing, lathework, vulcanizing. Open day and night.

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Taking a Car Through the Desert

Advice to Those Who May Tour Eastward Over the Southern Route

By Harris M. Hanshue

Assuming for the sake of argument that you are about to take an automobile trip through the desert, and, never having done any desert driving are looking for pointers bearing on that subject, we shall first dwell on the equipment which it would be well to take on a desert tour.

The only implements necessary in addition to the full complement of hand tools with which the car is supplied, are the shovel and hand axe. An African water bag should contain your drinking water and a large canteen the extra water for the radiator. A few cans of tomatoes are a handy thing to have in an emergency, as one can quench thirst better and travel farther on tomato juice than on water. You should carry a gallon can of cylinder oil, sealed, at all times.

Instead of carrying a large number of extra casings, it is better to have only one or two, but plenty of tubes and blowout shoes, inner and outer. This keeps your weight down, but at the same time insures you against being hung up for want of tires. The car should be equipped with oversize plain tread tires and with a tire pump in working order. You also want a tire gauge in your pocket. You should have a set of tire chains for use in any of the outlying irrigated districts where the roads are flooded to keep them in condition.

A spring repair outfit, consisting of a bar of steel with clips to hold it in place, may stand you in good stead if your car has seen much service. These things, with the possible exception of a blanket or robe for each passenger, and some assorted nutritious canned foods, are all that are required for the most strenuous jaunt through the unfrequented wilds, for it is essential that you keep the load down to the lowest possible figure when you expect to travel in sand.

This suggests the idea that a car of light weight constructed of strong, tough material is best suited for this class of work. It should have nine inches or more clearance and the fly-wheel should have greater clearance than the axles. The carburetor and magneto should be protected, both above and below, from the dust and sand which is thrown against the hood and pan by the front wheels. All grease cups should be lined and screwed down often, so that the grease squeezes out of them, for when the bearings are full of grease no dust nor grit can get in. This is also true of the differential transmission and crank case. If the oil is running out of every joint you are sure no sand is going to destroy the gears and bearings. The oil in the crank case should be drawn off and fresh oil substituted every 500 miles of desert driving on account of the dust entering the motor through the carburetor and breather tube.

Now, having the car ready for the grind, we will consider some suggestions touching on the actual work of handling it on desert roads. When you come to the point where your road map tells you that you will encounter several miles of deep, fine sand, you should deflate your tires to fifteen to twenty-five pounds pressure, according to your load and tire size. Four and one-half inch tires should carry twenty-five pounds; five inch twenty pounds, and anything over five inch fifteen pounds, for the reason that the larger the tire the thicker and stiffer the sides, so it is necessary to let out more air to get the width of contact on the face of the tire. This allows the tire to flatten out and hold the car on top of the sand instead of sinking in over the felloes. On a traveled sandy road, always keep in the tracks, but if you get off the road, try to get back on gradually, and do not turn your front wheels sharply, as you cannot make any progress whatever in sand with the front wheels cramped. In soft drift sand or wash gravel, slow down to from four to eight miles per hour, using the low or intermediate gear and maintaining an even, steady, constant torque on the rear wheels to keep the axle from jumping, and using the power sparingly to prevent the wheels from burying themselves. On sandy grades or anywhere you stall, it is a good plan to back up and start again in the tracks you have made, and when you have advanced as far as you can, repeat the operation until you have traversed the difficult area.

If you find you can neither retreat nor advance, do not make the mistake made by all novices and most professional drivers and punish your motor and car by trying to buck through by main strength and awkwardness, but get out and shovel the sand from in front of the wheels, especially the front, and cut some brush and throw in the path of the rear wheels to give them traction, and you will be surprised how easily the car will move out. However, on approaching a questionable place, it saves time and wear and tear on car and nerves to get out and throw the brush in and make a road before attempting to drive through. In starting from a standstill in a difficult position, it is necessary to take care that the car starts gradually, so as not to put a sudden strain on any of the driving parts. This is a very difficult thing to do with a clutch which is severe and engages without any slippage. A cone or disk clutch is likely to become very severe through dryness and dust. The Apperson contracting band clutch excels for this work, because it never starts the car with a jerk whether flooded with oil or covered with sand, but always moves it off gently and smoothly under all conditions.

Speaking of springs, do not drink from them at all, but especially if there are no animal or bird tracks around them, as this is a sign that the water contains arsenic or some other poisonous ingredient.

When driving on a road with a high center and ruts on each side, it is well to take no chances, but to straddle one of the ruts by putting one wheel on the center and the other on the high ground outside the rut and proceed very slowly in order not to slip back into the road and damage oil reservoir or differential case.

In case of an accident which would make it necessary for one of the party to go for help, do not let him walk on the desert in the heat of the day. He will make better time traveling in the cool of the morning and evening and resting in the middle of the day. Many a man has lost his life attempting a ten-mile walk in a very high temperature. But to be sure to avoid any such necessity, the idea you must carry with you when driving in the desert is that you cannot gain anything by hurrying; that conservative driving always wins over alternate speed and breakdowns, and that the surest and quickest way to arrive at your destination is to keep your car going at a safe, steady gait all the time.

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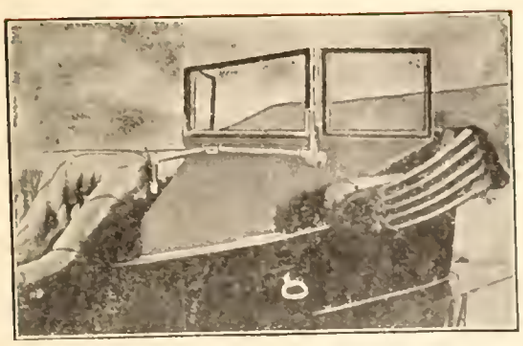

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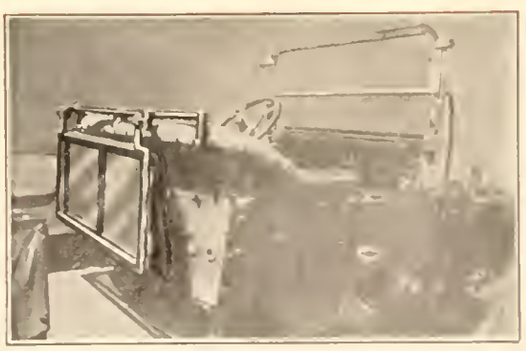

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